# AUTOMOTIVE INDUSTRIES

PASSENGER CARS • TRUCKS • BUSES • AIRCRAFT • TRACTORS • ENGINES • BODIES • TRAILERS • ROAD MACHINERY • FARM MACHINERY
PARTS AND COMPONENTS • ACCESSORIES • PRODUCTION EQUIPMENT • SERVICE EQUIPMENT • MAINTENANCE EQUIPMENT
ENGINEERING • PRODUCTION • MANAGEMENT

## 33rd ANNUAL STATISTICAL ISSUE

MARCH 15, 1951

**The Most Complete Tabulation of Important Motor Vehicle, Aviation and Tractor Data for 1950**

**Up-to-Date Engine Specifications and Production Gasoline—Diesel—Aircraft Gas Turbine**

**New Car and Truck Registrations by Makes and Years**

**World Census of Motor Vehicles by Continents**

**Industrial Output, Labor Force, Wages, Cost of Living**

**Automotive Wholesale and Retail Outlets by States**

**Defense Contract Awards for Tanks, Trucks and Warplanes**

*Complete Table of Contents, Page 65*

A CHILTON PUBLICATION



# precision horsepower

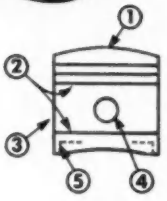
## ...by Heald

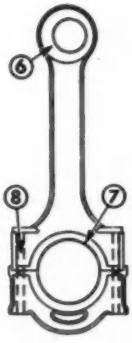
No—Heald doesn't *make* these piston and crankshaft assemblies. But Heald *machines* do! In fact the speed and precision of Heald grinders and Bore-Matics have long been important factors in the mass production of automotive parts. The nine Heald operations performed on the assembly shown above are typical examples.

Remember—when it comes to precision finishing, it pays to come to Heald.

**Piston, conn rod and crankshaft components Precision finished on Heald Bore-Matics**

1. Piston dome centered
2. Piston O.D. grooved for piston rings
3. Piston O.D. turned, straight or elliptical
4. Piston wrist pin holes bored and grooved
5. Piston skirt inside diameter bored
6. Wrist pin holes in conn rods bored, steel and/or bronze
7. Crankshaft holes in conn rods bored
8. Conn rod bolt holes bored
9. I.D. of crankshaft end bored







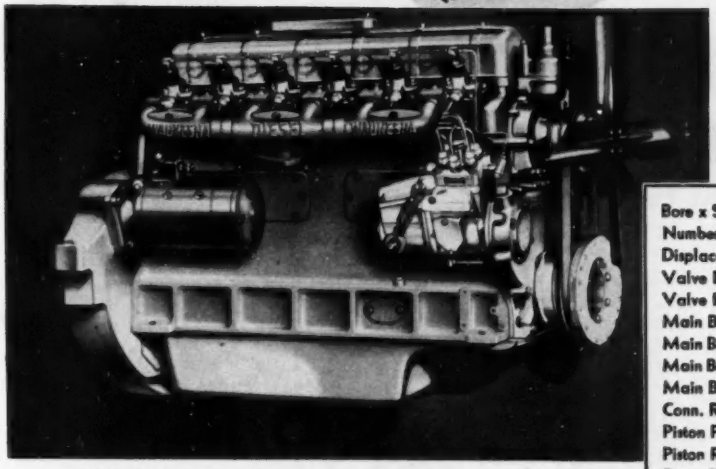
HEALD

**THE HEALD MACHINE COMPANY**

**WORCESTER 6, MASSACHUSETTS**

Branch Offices: Chicago • Cleveland • Dayton • Detroit • Indianapolis • Lansing • New York

# A *New* WAUKESHA Transport *Diesel* Six



MODEL 135-DKA

| | |
|---|---|
| Bore x Stroke | 4¼ x 5 |
| Number of Cylinders | 6 |
| Displacement, cu. in. | 426 |
| Valve Diameter, clear, intake | 1¾ |
| Valve Diameter, clear, exhaust | 1½ |
| Main Brg., Front, dia. x lgth. | 3¼ x 1 1/16 |
| Main Brg., Center, dia. x lgth. | 3¼ x 2⅜ |
| Main Brgs., Inter. (4), dia. x lgth. | 3¼ x 1 1/16 |
| Main Brg., Rear, dia. x lgth. | 3¼ x 2½ |
| Conn. Rod Brg., dia. x lgth. | 3 x 1⅜ |
| Piston Pin, floating, dia. x lgth. | 1½ x 3⅝ |
| Piston Rings, Comp. (3), face width | ⅛ |
| Piston Rings, Oil Control (1), face width | 3/16 |
| Timing Gears, face width | 1¼ |
| Flywheel Housing, S.A.E. No. | 3 |

All dimensions given in inches unless otherwise stated.

**...with all these modern features,** this engine is suited for high speed metropolitan and suburban delivery service as well as high speed highway transport. A full Diesel four-cycle engine, its patented spherical combustion chamber permits it to burn all modern high speed Diesel fuels from 45 cetane up.

***Cylinder Head***—Alloy iron casting in which are mounted removable combustion chambers, valves and valve operating mechanism. Both valve seats are Stellite inserts.

***Crankcase*** — Deep, rigid, combination crankcase and cylinder block, sturdily braced by the seven bearing bridges and the outside longitudinal rib and struts at the base. Large openings give access to coolant jacket for inspection and removal of scale and sludge.

***Cylinders***—Renewable dry liners of hardened alloy iron, honed to fine finish.

***Pistons***—Aluminum alloy with four rings, all above the piston pin. Three compression rings, K-type; one oil control, square section. Top ring is chrome plated.

***Piston Pins***—Extra large, hollow, hardened and lapped finish. Full floating.

***Crankshaft***—Seven-bearing, drop-forged, heat-treated steel. Crankpins and main journals are hardened (500-600 Brinell), ground, and polished. For high speed (2800 rpm) and peak output operation the crankshaft is counter-weighted and fitted with torsional vibration dampner. Shafts are statically and dynamically balanced to 4/10 inch-ounces.

***Connecting Rods*** — Rifle drilled, heat-treated drop forgings. Large bearing is steel backed copper-lead precision shell—small end has hard bronze bushing.

***Main Bearings*** — Precision type, steel backed, copper-lead shells; heavy, ribbed caps and heat-treated bolts.

***Valves and Seats***—Both intake and exhaust valves are Stellite-faced alloy steel forgings operating in renewable guides. Both valve seats are Stellite inserts.

***Timing Gears*** — Wide-faced, helical-cut timing gears are mild steel and cast iron.

***Lubrication*** — Full pressure by gear-driven gear-type pump to main, rod, camshaft, and piston pin bearings. Metered intermittent pressure to timing gear spray, rocker arms and valve chamber. Flood oiling to cams and tappets from valve chamber spill-back; cylinders and pistons are lubricated by crankshaft throw-off. Pump has floating intake screen to insure only clean oil is drawn from the clear top layer of the oil supply.

***Oil Filter***—Large waste-packed oil filter bolted to the crankcase is shunt-connected; cleans oil continuously.

***Cooling***—Efficient belt-driven pump-and-fan, flange-mounted at the front of cylinder block provides positive circulation of coolant. Thermostat assists in fast warm-up, and maintains proper jacket temperatures.

***Injection System*** — American Bosch flange-mounted injection pump with drawn steel injection lines to American Bosch single orifice pintle nozzles.

***Fuel Feed Pump***—Diaphragm-type primary pump mounted on camshaft side of crankcase is positively driven from eccentric on camshaft. Hand lever for initial filling of fuel system.

***Fuel Filter***—Adequate protective fuel oil filter.

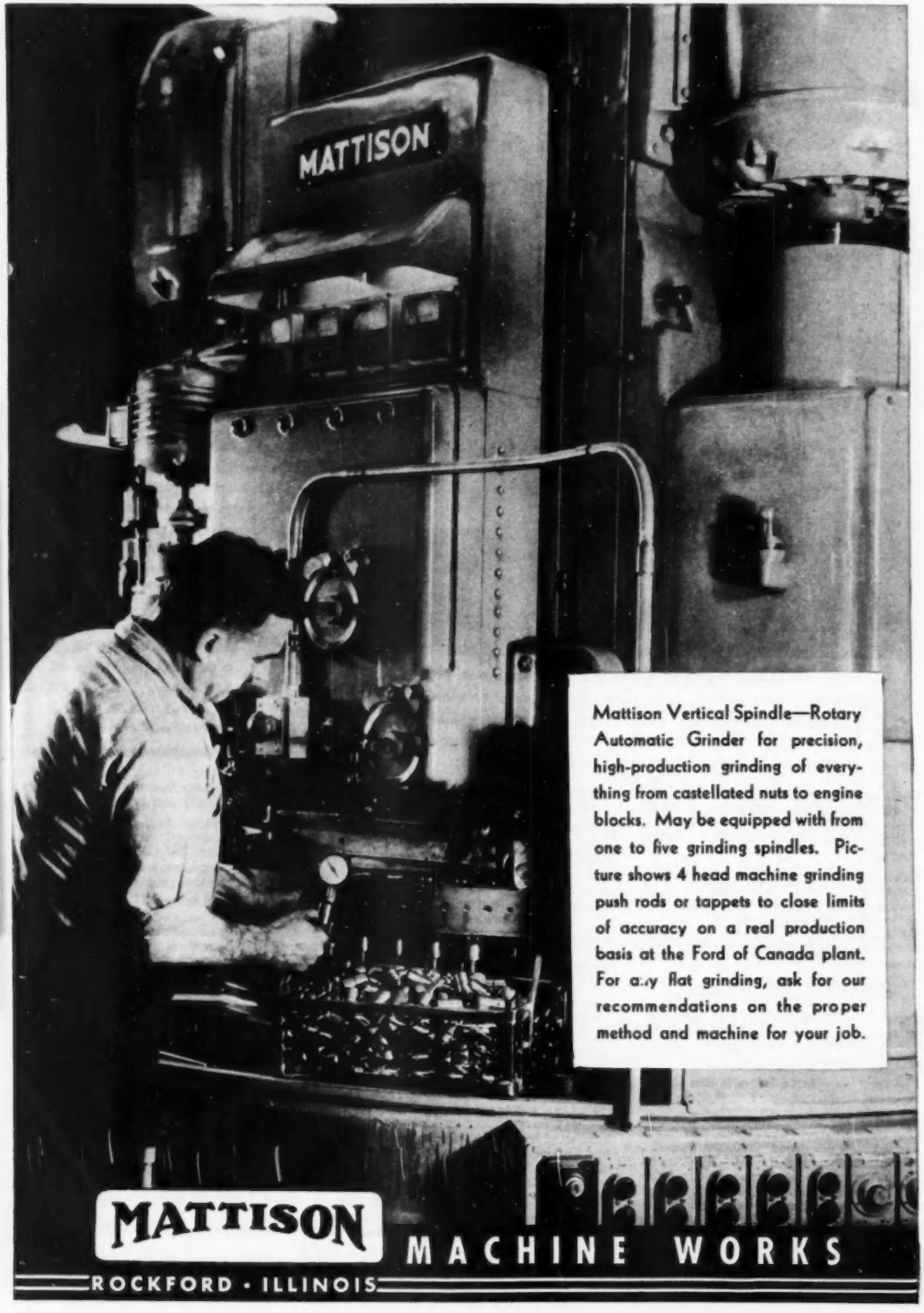
***Governor*** — Waukesha-type centrifugal governor incorporated in fuel injection pump. It is fully enclosed, self-lubricating and non-hunting.

***Starters*** (Extra)—Electric starting, 12-volt system with belt-driven generator, regulator and details; Chevron primer is also available as "extra" equipment.

***Send for Bulletin 1573. Consult Waukesha Engineers about all your engine requirements. No obligation.***

115

WAUKESHA MOTOR COMPANY, WAUKESHA, WIS. • New York, Tulsa, Los Angeles




Mattison Vertical Spindle—Rotary Automatic Grinder for precision, high-production grinding of everything from castellated nuts to engine blocks. May be equipped with from one to five grinding spindles. Picture shows 4 head machine grinding push rods or tappets to close limits of accuracy on a real production basis at the Ford of Canada plant. For any flat grinding, ask for our recommendations on the proper method and machine for your job.

**MATTISON MACHINE WORKS**

ROCKFORD • ILLINOIS

# AUTOMOTIVE INDUSTRIES

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BALL JOINTS • PIPE PLUGS
AND
QUALITY SCREW MACHINE PRODUCTS




The use of Tourek Ball Joints—the only recognized standard—frequently brings about simplified design, improved performance and lower costs. A wide range of standard types is carried in stock to assure prompt delivery.




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The Tourek plant is one of the largest and most modern in this field. It is equipped with the latest in high speed single and 6-spindle automatics, as well as complete secondary equipment including grinding and brazing. These production facilities—backed by 30 years' experience, assure you "The Best In Quality Screw Machine Products".

Depend upon Tourek for your screw machine product needs, in sizes up to 2⅜".

**LITERATURE.** Comprehensive data on any or all Tourek products sent promptly upon request . . . write for yours now. J. J. TOUREK MFG. CO., 4701 W. 16th St., Chicago 50, Illinois



TOUREK

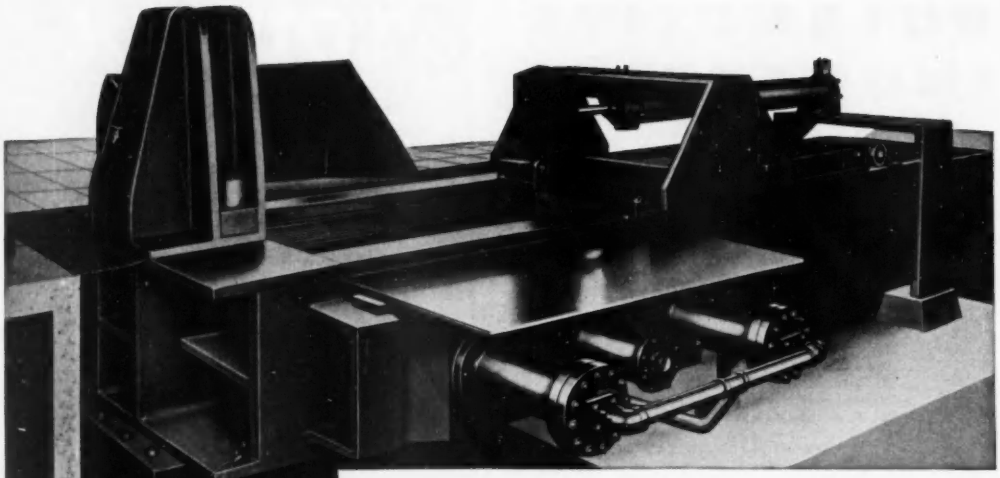
"THE BEST IN QUALITY SCREW MACHINE PRODUCTS"

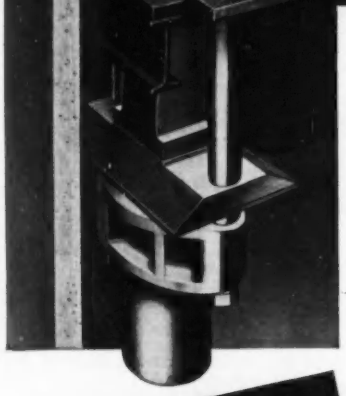


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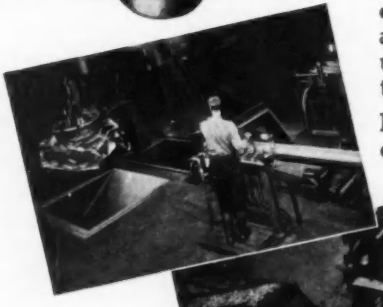




## *Help Keep the* SCRAP CYCLE *in HIGH GEAR for Top Level Steel Production*

The "heart" of your sheet-steel salvaging program is your baling equipment. It should be adequate to handle your daily accumulation of sheet steel scrap efficiently at low cost-per-ton. Then you can show a profit on your salvaging operations while contributing your share to the rapidly expanding production of new steel in the years ahead.

Large G-H Balers, properly designed and ruggedly constructed, hold to a minimum the cost-per-ton of baled sheet steel scrap. Galland-Henning engineers, with a background of many years' experience in this field, offer you competent counsel on your scrap baling operations. Consult them NOW regarding modernization or expansion of your baling facilities to meet future needs.





Typical views of G-H Baler operations in large metal-working plants.

**GALLAND-HENNING MFG. CO.**
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## SCRAP METAL BALING PRESSES

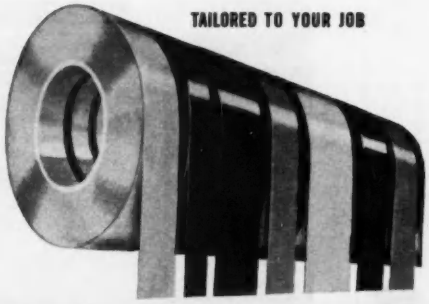
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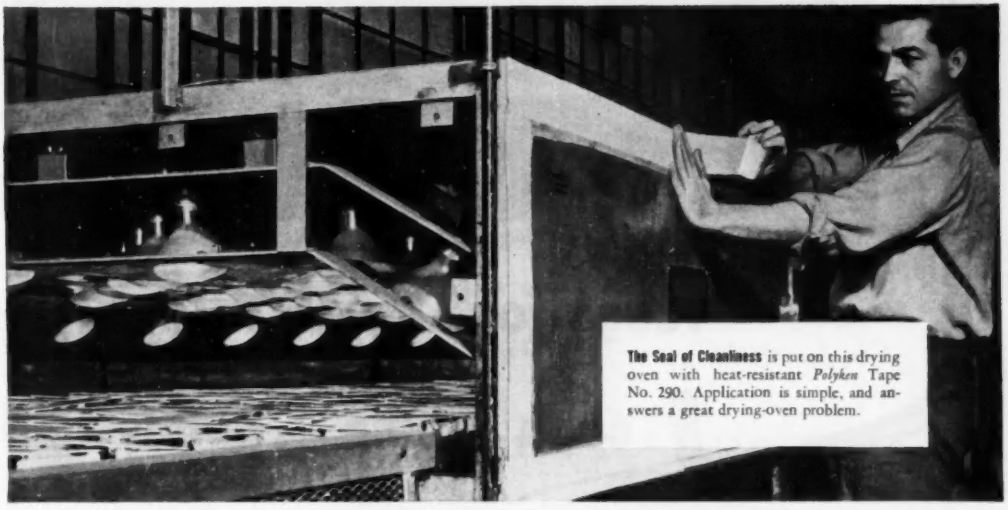
THE NEW

# Polyken®

## INDUSTRIAL TAPES

TAILORED TO YOUR JOB





**The Seal of Cleanliness** is put on this drying oven with heat-resistant *Polyken* Tape No. 290. Application is simple, and answers a great drying-oven problem.

# They come clean when the heat's on!

When you guarantee metal tile not to rust, crack, craze, chip or peel, you can't gamble with any halfway measures. The Ohio Can and Crown Company, makers of Crown Metal Wall Tile, makes just such an iron-clad guarantee.

This means every step in the manufacture of these modern tiles must be tightly controlled.

One delicate operation was the drying oven. This oven is twenty feet long, and surface temperatures reach as high as 350 degrees. The many crevices and openings in the oven allowed dirt to filter through onto the conveyor line where the freshly enameled tiles were moving.

Since the oven had to be occasionally disassembled for thorough cleaning, it was impractical to caulk or weld these openings. A *Polyken* Sales Engineer, after testing, suggested *Polyken* Industrial Tape No. 290 for an efficient, timesaving seal. This tape has a flame-resistant adhesive, with a backing of heat-resistant woven glass cloth. Ohio Can and Crown now uses it exclusively for this sealing purpose. By withstanding the tremendous heat and sealing the dirt out, yet, because it strips off easily, No. 290 has solved a major problem in the oven-drying of enameled surfaces.

**FREE SAMPLES.** Write today for complete specifications and engineering data, plus samples of *Polyken* No. 290. Address *Polyken*, Dept. AIC, 222 West Adams Street, Chicago 6, Illinois.

***Polyken* Industrial Tape, Department of Bauer & Black, Division of The Kendall Company**



Thirty vital Bundyweld parts in Reo-built Eager Beaver.

◆ Engine oil tube.

# Tough job. Tough truck.

# Tough tubing...Bundyweld

**The job:** Carry five tons a mile a minute, negotiate 60-percent grades, cruise 340 miles non-stop, operate from 65° below zero to 125° above, run in seven-foot-deep water, and more. *The truck:* Army Ordnance's 2½-ton powerhouse M-34 (Eager Beaver) built by Reo Motors. *The Tubing:* Bundyweld, top automotive tubing, in critical fuel, hydraulic brake, lubrication, and other systems.

Bundyweld is the only tubing double-walled from a single strip, with an exclusive beveled edge. It's copper-brazed through 360° of wall contact, extra-strong, leakproof, better performing in automotive products. Bundyweld forms easily, bends quickly to short radii without structural weakening. Its close tolerances reduce rejects, help production roll.

And if those new orders call for an "impossible" bend, you can rely on Bundy. We'll find a way to turn out your part. We'll produce it, too, and rush finished parts to you.

Today, find out what Bundy and Bundyweld can do for your product and production. Write: ***Bundy Tubing Company, Detroit 14, Michigan.***

# Bundyweld® Tubing

**DOUBLE-WALLED FROM A SINGLE STRIP**

**WHY BUNDYWELD IS BETTER TUBING**




Bundyweld starts as a single strip of basic metal, coated with a bonding metal. Then it's . . . continuously rolled twice around laterally into a tube of uniform thickness, and passed through a furnace. Bonding metal fuses with basic metal, presto— Bundyweld . . . double-walled and brazed through 360° of wall contact.




**NOTE** the exclusive patented Bundyweld beveled edge, which affords a smoother joint, absence of bead and less chance for any leakage.

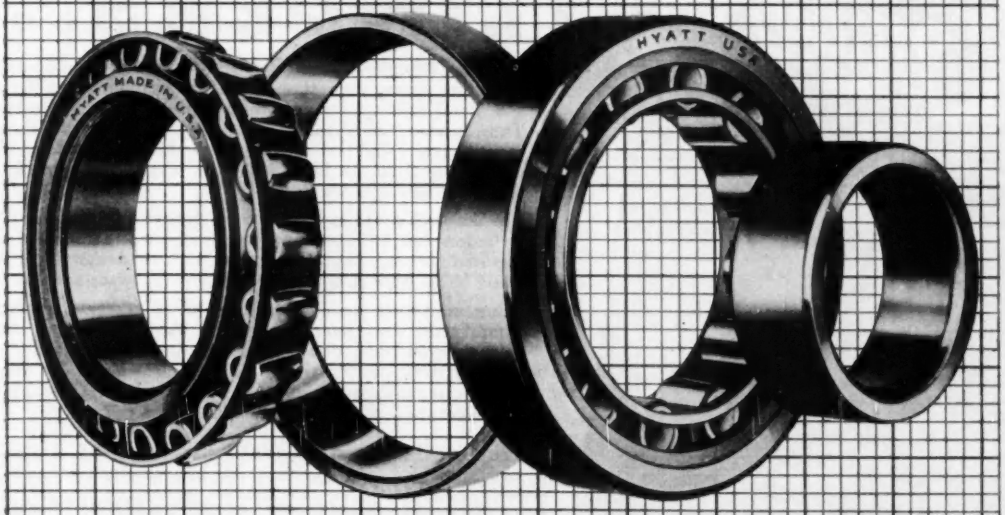
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# All Around Experience At Your Call

**With the simplicity of their construction and ease of assembly, Hyatt Roller Bearings furnish everything needed to help you on your design job.**

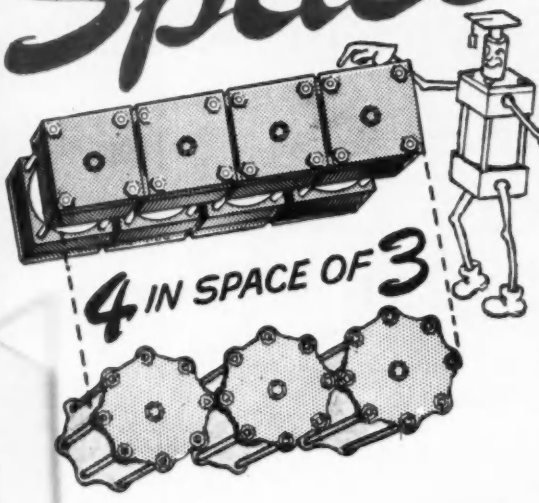
**For both radial and thrust loads there is the Hyatt Spherangular series of angular contact self-aligning bearings. Then there is the Hyatt Hy-Load line of straight cylindrical roller bearings in a wide variety of types and sizes from which to choose.**

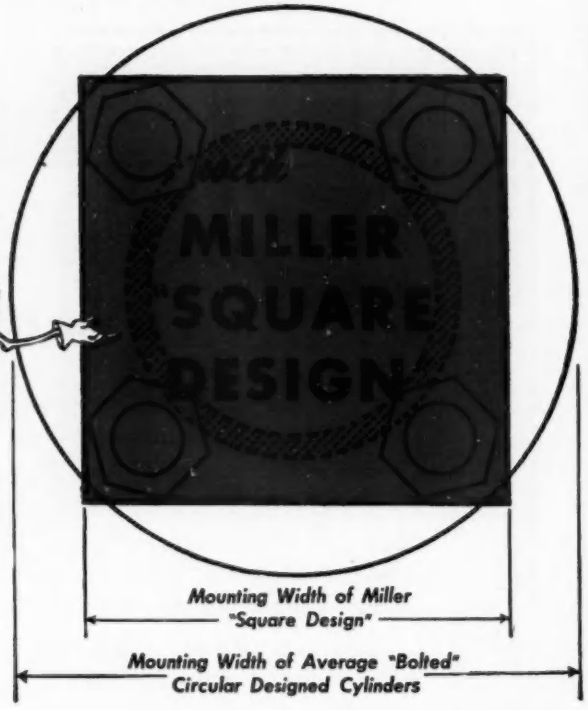
**This wide selection of bearings with Hyatt's long and all-around automotive experience, is yours to call on for help at any time. Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.; Detroit, Mich.**




**HYATT ROLLER BEARINGS**

# Save Space




# Air *and* Hydraulic CYLINDERS...

**The SQUARE DESIGN of Miller Cylinders saves up to 25% of mounting space, permitting more cylinder power in the same space and easier, more convenient installation in "tight spots." Thus, in many cases, machines and equipment can be designed more compact and less costly by using Miller Cylinders. Hours of drafting time can be saved — as only a few straight lines show any view on drawings.**

**The illustration at upper left shows graphically how *four* Miller Cylinders can be mounted, bore for bore, in the same space required for *three* average "bolted" circular designed cylinders. Some Miller bore sizes permit even greater space-savings.**

**Other important *standard* features of all Miller Cylinders include: solid steel heads, caps and mountings, hard chrome plated piston rods, dirt wiper seals, and other "quality" features as shown in illustrated bulletins sent FREE on request. Remember, too, that Miller Hydraulic Cylinders (2000-3000 psi) meet the J. I. C. Hydraulic Standards.**




## Benefits to You!

- More Cylinder Power in Same space
- Solve "Limited Space" Problems
- Simplify Designing and Installation
- Save hours of Drafting Time

Write for illustrated cylinder bulletins A-105 and H-104

COMPLETE MILLER CYLINDER LINE INCLUDES: AIR CYLINDERS, 1½" to 20" BORES, 200 PSI OPERATION; LOW PRESSURE HYDRAULIC CYLINDERS, 1½" TO 6" BORES FOR 500 PSI OPERATION, 8" TO 14" BORES FOR 250 PSI; HIGH PRESSURE HYDRAULIC CYLINDERS, 1½" TO 12" BORES 2000-3000 PSI OPERATION. ALL MOUNTING STYLES AVAILABLE.

Miller

**MILLER MOTOR COMPANY**

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AIR AND HYDRAULIC CYLINDERS · ACCUMULATORS · COUNTERBALANCE CYLINDERS · BOOSTERS · AIR HOISTS

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*Sales and Service from coast to coast*

# WHEN THE JOB IS *Tough*



U. S. ARMY'S REO-BUILT "EAGER BEAVER"

## ROSS BRINGS EASE . . . AND ECONOMY

FEARSOME MUCK that spells "impassable" to ordinary vehicles, is taken in its stride by the U. S. Army's new Reo "Eager Beaver." Powered by Reo's new "Gold Comet" engine, the "Eager Beaver" also features *the finest in steering—ROSS.*

The Ross policy of incorporating advancements in design as they are proved by exhaustive tests has resulted in many recent improvements. Current Ross models have:

(1) ***Increased mechanical reduction*** . . . (2) ***More compactness*** . . . (3) ***Reduction in weight*** . . . (4) ***Greater arm angular-travel*** . . . (5) ***Improved metallurgy*** . . . (6) ***Increased efficiency.***

Throughout 44 years of leadership in this industry, Ross gears have been distinguished for long life, simplicity of adjustment and maintenance of long-recognized qualities of safety, stability and performance. We invite discussion of any steering problem.

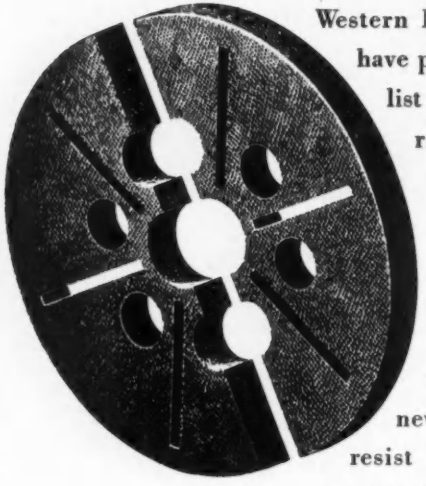
Ross *Cam & Lever* **STEERING**

**ROSS GEAR AND TOOL COMPANY • LAFAYETTE, INDIANA**

# P.V.* APPROVAL

*Plus Value





Western Felt users over a long period of years have placed their stamp of approval on a long list of its products. They know from experience the "plus value" in every Western Felt component part. Highest precision in its processing and cutting produces a uniformity that minimizes rejections—prevents failure of the finished product from felt causes. They are available from wool softness to rock hardness—never lose shape—do not ravel or fray—resist oil, water, age—are resilient, flexible, compressible—may be cut to close tolerances.

Acadia Synthetic Products Division, WESTERN FELT WORKS, Processors of Synthetic Rubber — Sheets, Extrusions, Molded Parts.

**WESTERN Felt WORKS**

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Chicago 23, Illinois

Branches in all Principal Cities

MANUFACTURERS AND CUTTERS OF WOOL FELTS

## *With these Tools* One Man Can Do More Work!



**PUNCHING**—7½-ton Hannifin "Hy-Power" Portable Punch used in the assembly of light gauge sheet metal structures.



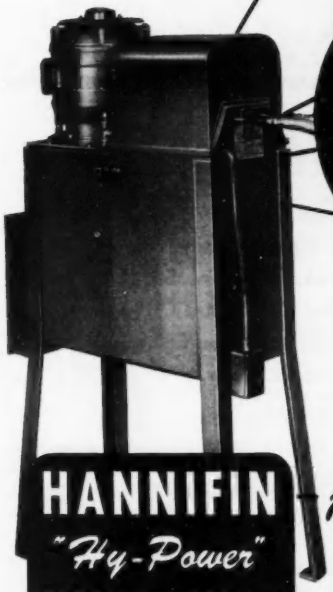
**RIVETING**—Fabricating steel furnace sections with 25-ton Hannifin "Hy-Power" Portable Hydraulic Riveter.



**RIVETING**—35-Ton "Hy-Power" Portable Riveter used in assembling heavy truck trailer frames.



**PRESSING**—7½-Ton Portable "Hy-Power" Press used in pressing timing gears on automobile engine crankshafts on conveyor assembly lines.



# HANNIFIN "Hy-Power" HYDRAULIC Power Units

## *plus* TOOLS that anyone can operate!

HERE is a combination that can't be beat! Hannifin "Hy-Power" hydraulic units quickly pay for themselves in even small production shops. In any plant, they enable a man to handle almost unbelievably large volumes of work with a minimum outlay for equipment and floor space. A most important advantage is that anyone can operate them and, without any special skill or experience, turn out perfect work hour after hour at peak speed. Physical effort needed to handle balanced tools is negligible. Work performed by different operators is always uniform.

Hannifin supplies everything you need—complete units designed to meet your particular requirements, or power units and cylinders for use in machines of your own design. Today, in thousands of installations throughout the world, production engineers and tool designers are using Hannifin "Hy-Power" Hydraulic equipment as the key to better, faster production and lower costs for an almost unlimited range of applications! You, too, can benefit from this equipment. *For complete information, see your local Hannifin representative, or write.*

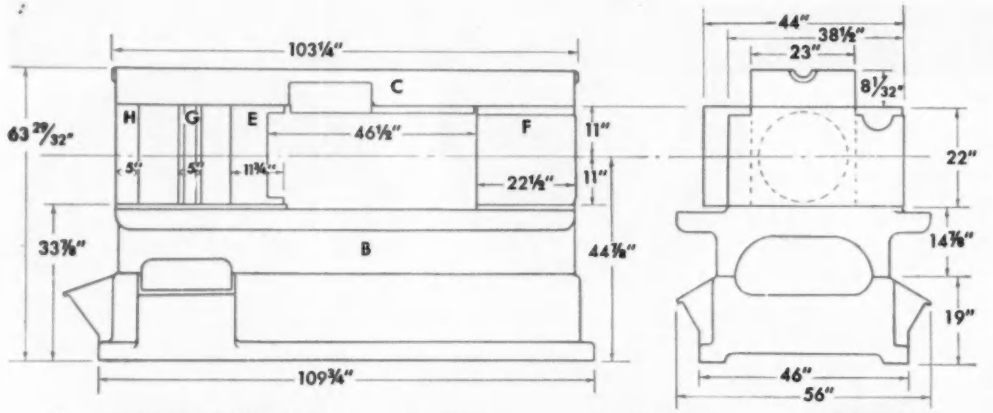


**"Hy-Power Hydraulics"**—ASK for a copy of this 28 page illustrated Bulletin No. 150 for Tool Designers and Production Engineers.

**HANNIFIN CORPORATION**

1143 South Kilbourn Avenue • Chicago 24, Illinois

AIR CYLINDERS • HYDRAULIC CYLINDERS • HYDRAULIC PRESSES
PNEUMATIC PRESSES • HYDRAULIC RIVETERS • AIR CONTROL VALVES




**H, G, E — HEADSTOCK SUPPORTS** Weight — 1233 lbs. | **B — BASE** Weight — 6655 lbs. | **C — TOP BED** Weight — 1232 lbs. | **F — GEAR BOX** Weight — 841 lbs.

# BE VALUE WISE OR OTHERWISE

True of any "means goods," the purchase price of any Multiple Spindle Bar Automatic is only relative. It is "high" or "low" on the basis of the total cost of its total services, compared to other brands. Important items of total cost are those of operation and maintenance.

Machine analysis will invariably disclose the low cost operation and maintenance features that have been "built into" a machine. Such features are built into the CONOMATIC, beginning with its very foundation. The figures above substantiate the claims below.

## THE 1½" Six Spindle MACHINE FRAME:

1. **Provides greater capacity for handling work.**

*The Frame provides a LONGER TOOLING AREA, with more positions and accommodations for tooling and attachment applications, with more clearance and conveniences for faster tool setting, than are provided by any other "automatic."*

2. **Provides better support to work and tools.**

*The Frame provides better support and alignment to headstock members, tool slides, and other units and mechanisms, with BASE SUPPORT CLOSER TO THE WORK AXIS, with BETTER TOP BED SUPPORT TO SHORTER, "WEAVE PROOF," UPRIGHTS, and, with larger, heavier, and stronger, Top Bed and Base, than are provided by any other "automatic."*

3. **Provides greater accessibility for lower cost operation and maintenance.**

*The Frame provides a more orderly arrangement of, and easier access to, all units, mechanisms, parts, and adjustments, than can possibly be provided by any "automatic" that does not have a VISIBLY ACCESSIBLE, NON-INTERFERING CAM SYSTEM.*

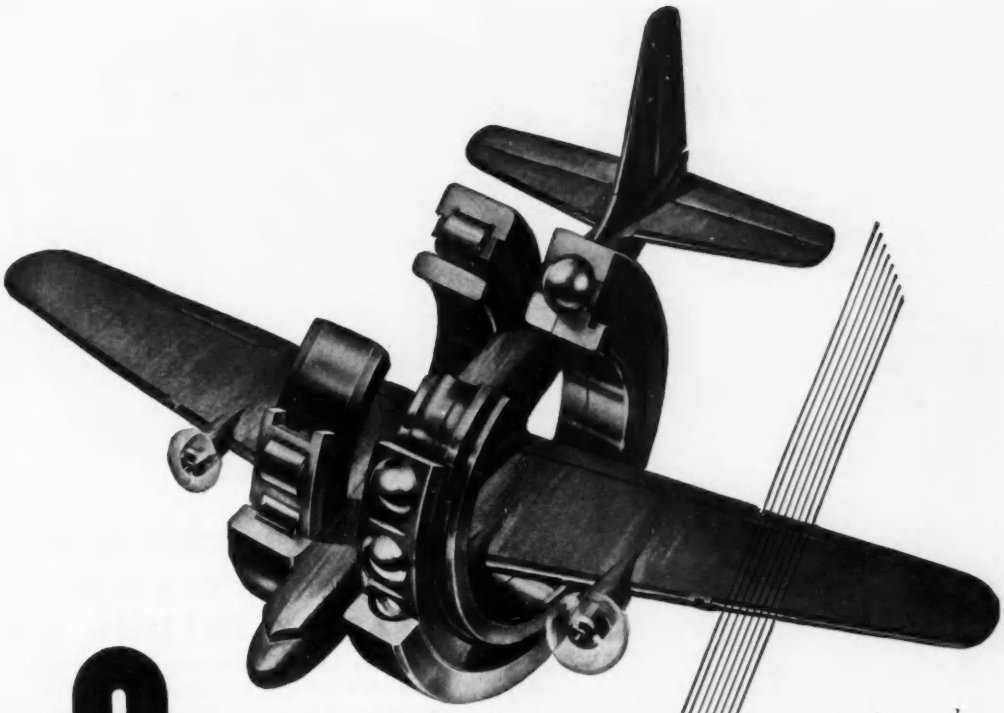


*Buyer's Comparison Chart will guide you to full information*



**A Comparison of ALL Automatics is in Favor of Cone**

**2Conomatic}** CONE AUTOMATIC MACHINE COMPANY, INC. WINDSOR, VT., U.S.A.



# 9/10

**The engine manufacturers who produce approximately nine-tenths* of the power for AMERICA'S aircraft use SKF BEARINGS.**

This, again, is typical of the acceptance of **SKF** Bearings by *all* industry—acceptance which has been built on confidence in **SKF**'s ability to help industry put the right bearing in the right place. 7165

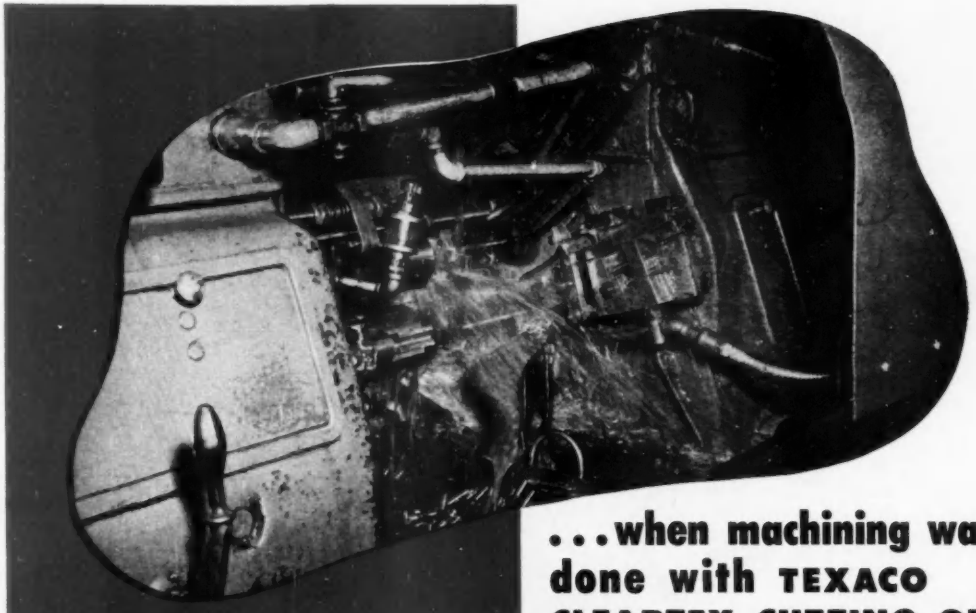
8 REASONS WHY SKF IS PREFERRED BY ALL INDUSTRY

- integrity
- craftsmanship
- metallurgy
- tolerance control
- surface finish
- product uniformity
- engineering service
- field service

**SKF**
BALL AND ROLLER BEARINGS

**SKF** INDUSTRIES, INC., PHILADELPHIA 32, PENNA.
*-manufacturers of* **SKF** *and* HESS-BRIGHT *Bearings.*

*Production figures estimated by Aviation Week. Bearing sales from SKF records.



# 130% GREATER PRODUCTION between tool grinds...

## ...when machining was done with TEXACO CLEARTEX CUTTING OIL

In this plant,* steel parts for pumps were being machined on Acme Gridley automatics. Two different competitive oils were being used — one as cutting fluid and the other as machine lubricant. Production lagged because of frequent tool changes, and contamination of coolant by machine oil necessitated frequent oil changes.

Then a Texaco Lubrication Engineer was asked what could be done to speed up production. He recommended using *Texaco Cleartex Cutting Oil B* as both coolant and machine lubricant. One oil thus replaced two; contamination problems and oil wastage were eliminated — and *production between tool grinds immediately jumped 130%!*

Machining stainless steel on the same set-up, use of *Texaco Cleartex Cutting Oil B* increased production between tool grinds 42%.

Let a Texaco Lubrication Engineer specializing in metal working help you gain increased production and lower unit costs in *your* plant. There is a complete line of Texaco Cutting, Grinding and Soluble Oils to help you do every machining job better, faster and at lower cost.

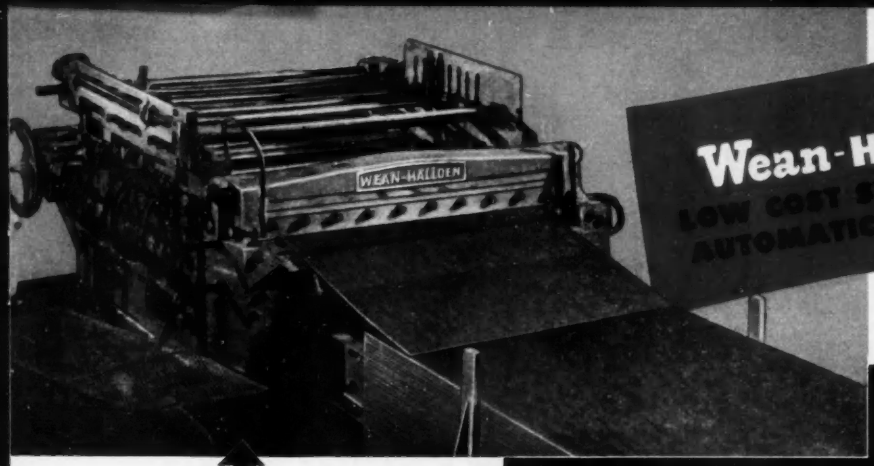
Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.

**Name of this Texaco user on request*

TEXACO

**TEXACO CUTTING, GRINDING AND SOLUBLE OILS FOR FASTER MACHINING**

TUNE IN . . . TEXACO presents MILTON BERLE on television every Tuesday night. METROPOLITAN OPERA radio broadcasts every Saturday afternoon.




## Wean-Hallden

LOW COST SYNCHRONIZED AUTOMATIC SHEAR LINES

THE installation of a Wean-Hallden Synchronized Automatic Shear Line assures you the most efficient shearing operation available today. The Wean-Hallden, while actually requiring *less floor space*, delivers up to *twice the production*.

Infinite variable lengths from 12-inches to 12-feet at speeds up to 200 FPM with accuracy better than commercial tolerances means faster production, reduced labor costs and minimum scrap loss for you. *Before You Buy—Investigate Wean-Hallden.*




Large or Small

**Wean CAN SOLVE YOUR SLITTING PROBLEM**

If you are in the business of handling strip steel or fabricating steel parts or products from strip steel you should give your slitting operation high consideration.

Well designed slitting lines enable you to reduce inventories, lower labor costs and eliminate expensive extras. Wean engineered slitting lines give you these important factors at lowest initial costs.

If you have a slitting problem — or merely desire a check on the efficiency of your present operation — call in Wean specialists.

**Wean** *Equipment Corporation*

CLEVELAND, OHIO



# A Veteran Returns to Active Duty

The end of the last war found our two plants, Chicago and Philadelphia, flying "E" Flags decorated with seven stars. In addition, our Chief Engineer at Philadelphia had received the highly prized Citation from the Ordnance Department for ". . . his initiative and ingenuity . . . to the vital war production program . . ."

The end of the war also saw us relocate machines for more progressive manufacturing; purchase additional equipment and build more floor space. We added 39,000 square feet at Chicago to total 156,000; 82,000 square feet at Philadelphia to total 152,000; and we have spent or appropriated $1,180,679 for new equipment. Further than this, we acquired a new plant in Birmingham of 60,000 square feet and equipped it with over $100,000 of machinery in addition to what was already in place.

These investments were made to prepare us for peacetime competition. They will serve us equally for war production. War products today amount to 5 per cent of our sales. We are ready for more.

Excellent relations prevail among our 1,400 employees and each one is loyal to the defense of America.

John B Catt

President

**UNITED**

**SPECIALTIES COMPANY**

Chicago 28 • Philadelphia 36 • Birmingham 11



Complete range of metal shapes; cold rolled, drawn and pressed.



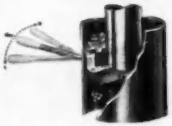
Gasoline engines used on tractors, combines and other agricultural implements are protected by this standard type United Oil Bath Air Cleaner.



Plastic oil bath air cleaner for small engines. Cleaning action visible to user.



This air cleaner protects diesel engines in truck, tractor and industrial power units.



Concealed type turn signal switch. Signal is self-cancelling.



Combination oil bath air cleaner and silencer for use on down draft carburetors.



Mitchell clamp-on and screw-type semi-automatic turn signal switch used in cars, trucks, busses.



Television picture tube spun metal shell. Available in 16-inch round and 17-inch rectangular models.



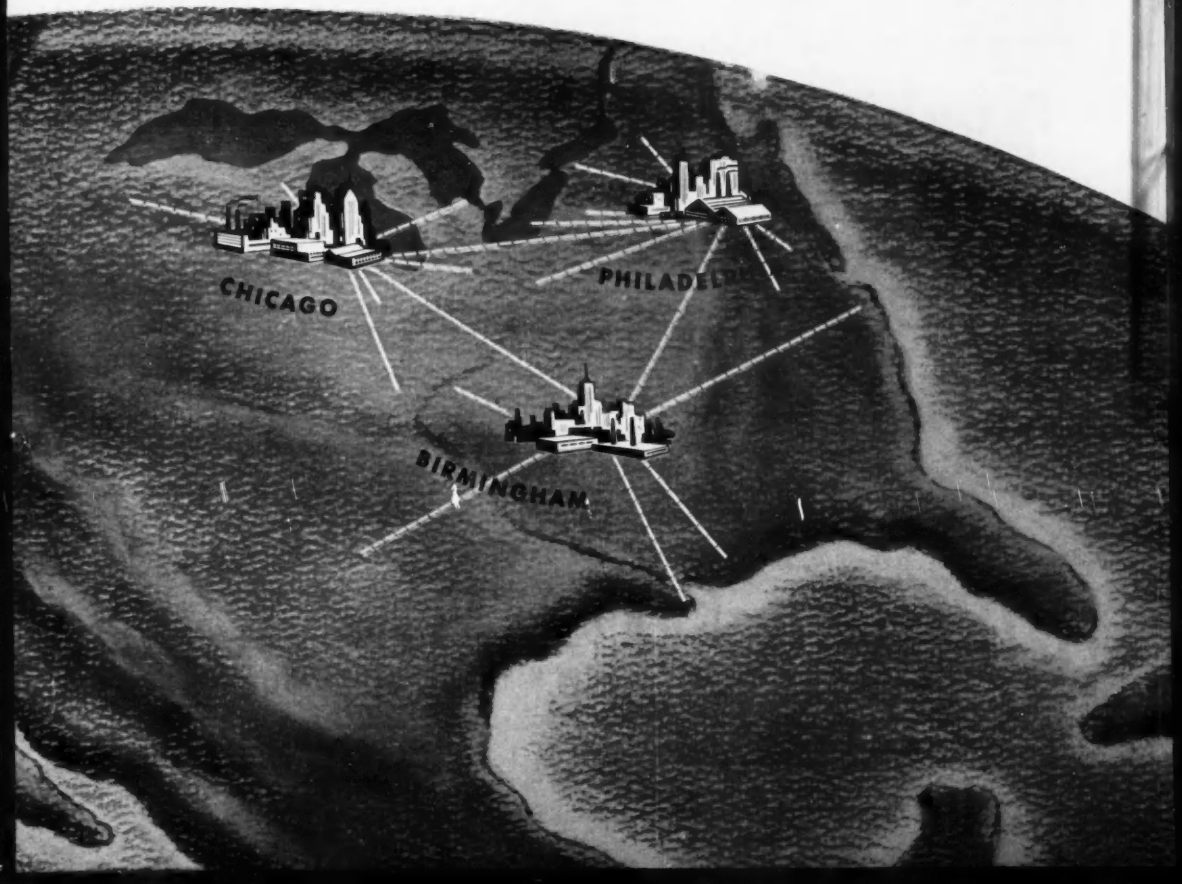
Popular style truck air cleaner mounted directly on air horn of down draft carburetor.

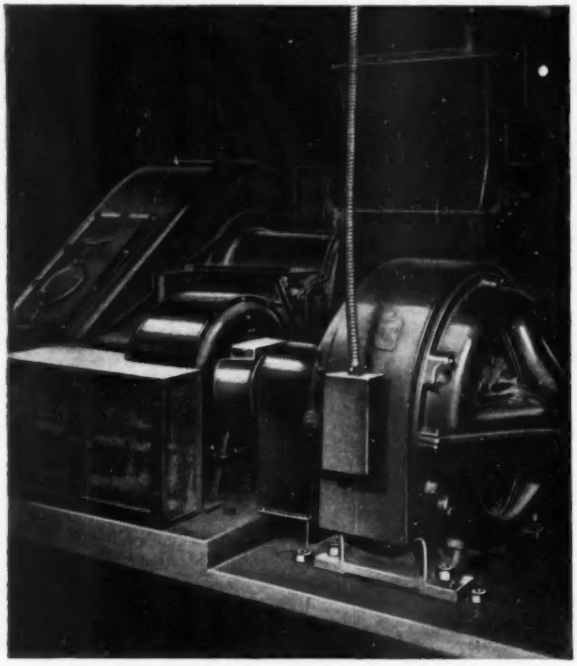


Conventional type Mitchell ignition switch used on popular makes of cars and trucks.



Heavy-duty truck oil bath air cleaner.





Model 8W Dynamatic Water-Cooled Coupling used to obtain adjustable speed from 200 HP, 720 RPM synchronous motor to drive a Plasticator carrying rubber from a Banbury Mixer in the plant of a large tire manufacturer.

DYNAMATIC®

# WATER-COOLED POWER COUPLINGS

WIDE SPEED RANGE
INSTANTANEOUS RESPONSE
ACCURATE SPEED CONTROL
STEPLESS SPEED ADJUSTMENT
SMOOTH TORQUE TRANSMISSION
TOTALLY ENCLOSED
SIMPLE • QUIET
COMPACT • EFFICIENT

## Provide Adjustable Speed Drive with any AC Motor




The Dynamatic Coupling transmits rotation from a driving to a driven member without mechanical contact—with stepless adjustable control and with almost instantaneous response. It is a simple and effective method of providing adjustable speed from a constant speed source (or vice versa) with full-torque starts. The addition of an eddy-current brake will provide smooth controlled deceleration.

Effective water-in-the-gap cooling makes possible large capacity in small space, and the construction provides complete protection of the interior of the coupling against atmospheric impurities.

A standard range of sizes of Dynamatic Water-Cooled Couplings is available for transmitting torques of 50 pounds feet up to approximately 5,000 pounds feet. Many other sizes up to and including single units for handling 200,000 pounds feet of torque are in service and units of larger capacity can be built to order.

*Write for Illustrated Bulletin WC-1*

DYNAMATIC® CORPORATION • KENOSHA WISCONSIN

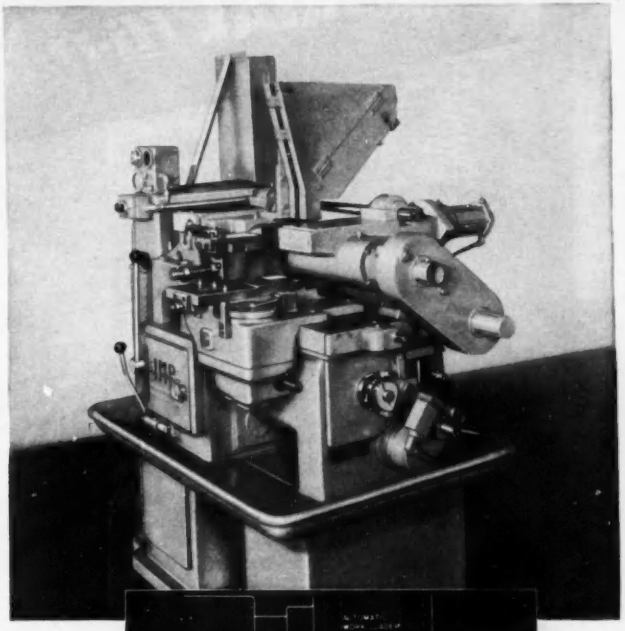
*Subsidiary of* **EATON MANUFACTURING COMPANY,** Cleveland, Ohio

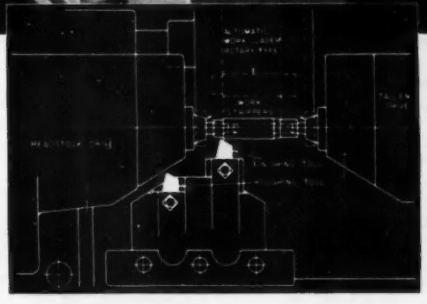
Dynamometers • Oil Well Draw-Works Brakes • Adjustable-Speed Couplings • Eddy-Current Brakes
Ajusto-Spedes • Shovel Clutches • Press Drives • Lift Truck Clutches • Electronic Controls

# MACHINE OF THE MONTH

PREPARED BY THE SENECA FALLS MACHINE CO. "THE *Lo-swing* PEOPLE" SENECA FALLS, NEW YORK

## HOPPER-LOADED *Lo-swing* IMP LATHE SPEEDS AUTOMATIC PRODUCTION OF VALVE GUIDES





*Problem:* To automatically load, rough and finish turn and automatically eject valve guides on a high production basis.

*Solution:* The Lo-swing IMP Automatic Lathe selected for this job was equipped with a Rotary Type Loader and a newly designed Hopper (capacity 200 pieces) which assure a constant flow of Valve Guides through the machine on a completely automatic cycle. This lathe is also equipped with revolving head and tailstock spindles driven from a splined jackshaft. The advantage of the double-end drive is twofold. Since the piece is driven from both ends, much coarser carriage feeds are possible, thereby considerably increasing production. Also, the double-end drive assures synchronization of the speed of both spindles and eliminates slippage wear on the centers.

Valve Guides, which have been previously bored to size, are placed in the hopper and fed by gravity into openings in the Rotary Loader. A mechanically operated agitator prevents the parts from jamming as these approach the lead-in chute. The Rotary Loader indexes the pieces to the proper position, where they are automatically picked up by the continuously revolving centers of both heads.

The O. D. is rough and finish turned in the same operation with two separate carbide tools, each having its individual rate of feed. The finish turning tool begins cutting after the roughing tool has been relieved from the work, thereby assuring close concentricity between bore and finished diameter. The Rotary Type Loader assures complete control over the fast revolving pieces, eliminating danger to personnel and damage to the pieces which are completely stationary by the time they reach the discharge chute.

**SENECA FALLS MACHINE CO., SENECA FALLS, N. Y.**

## PRODUCTION COSTS ARE LOWER WITH *Lo-swing*

*Another Outstanding Heavy Duty Tractor Equipped with . . . . .*

# IMPERIAL *Hi-Duty*® FITTINGS

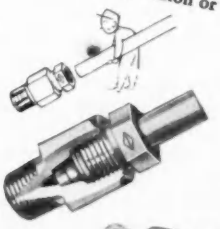


Newest in the ever-growing line of CATERPILLAR machines is the "Cat" DW 20 Tractor with W 20 Wagon. Among the many modern components that make up these units are Imperial Hi-Duty Fittings which have been used for many years on Caterpillar Tractor Co. equipment.

Imperial Hi-Duty Fittings have won wide-spread preference and have been used as standard equipment by leading manufacturers because they have

**More Capacity to Withstand Vibration and Severe Service**—Imperial Hi-Duty Fittings withstand over 5 times as much vibration as ordinary Compression or Flared brass fittings. Their superiority has been proved by many years of field service and extensive laboratory tests.

**Easier and Quicker to Assemble**—Fitting comes with nut assembled. Simply push tube into fitting and tighten nut. No loose sleeve to contend with . . . no tube flaring required. Makes repeated tight reconnections.



**Caterpillar DW 20 Tractor and W 20 Wagon. 275 HP peak capacity. Speeds up to 26.6 mph. Wagon capacity 17 cu. yds. struck, 25 cu. yds. heaped.**

★ **For Faster, More Dependable Tubing Connections Use the HI-DUTY FITTING**

★ **For Tubing ⅛" to ¾" O. D.**

★ **Available in Brass or Aluminum**

★ **Ask for Catalog 350 and Bulletin 365**



# IMPERIAL

Pioneers in Tube Fittings and Tube Working Tools

THE IMPERIAL BRASS MANUFACTURING COMPANY, 1214 West Harrison Street, Chicago 7, Illinois

# BUS FLEET OPERATORS KNOW THE ECONOMY OF

# *Wagner Air Brakes*












The knowledge gained by Wagner in more than 20 years of manufacturing brakes and complete braking systems, used as original equipment by many vehicle manufacturers, is reflected in the outstanding performance of the Wagner Air Brake — the system with the Rotary Air Compressor. This unique compressor utilizes the rotary principle and provides an abundance of compressed air at all times regardless of the number of stops.

Because of the ever-growing demand for safer and more economical braking of buses and other heavy-duty vehicles Wagner Air Brakes are now being used by many large fleet operators. Add a selling feature to the vehicle you manufacture by standardizing on Wagner Air Brakes. Their wide recognition for dependable troublefree service is a point in your favor. Get the facts on the Rotary Compressor . . . the Power Cluster . . . and other features of Wagner Air Brakes. Write for copy of new Bulletin KU-201.

***Wagner Air Brake Users are our Biggest Boosters.***

**Wagner Electric Corporation**

6363 PLYMOUTH AVE., ST. LOUIS 14, MO., U. S. A.

(Branches in Principal Cities and in Canada)

LOCKHEED HYDRAULIC BRAKE PARTS and FLUID . . . NoRoL . . . CoMaX BRAKE LINING . . . AIR BRAKES . . . TACHOGRAPHS . . . ELECTRIC MOTORS . . . TRANSFORMERS . . . INDUSTRIAL BRAKES

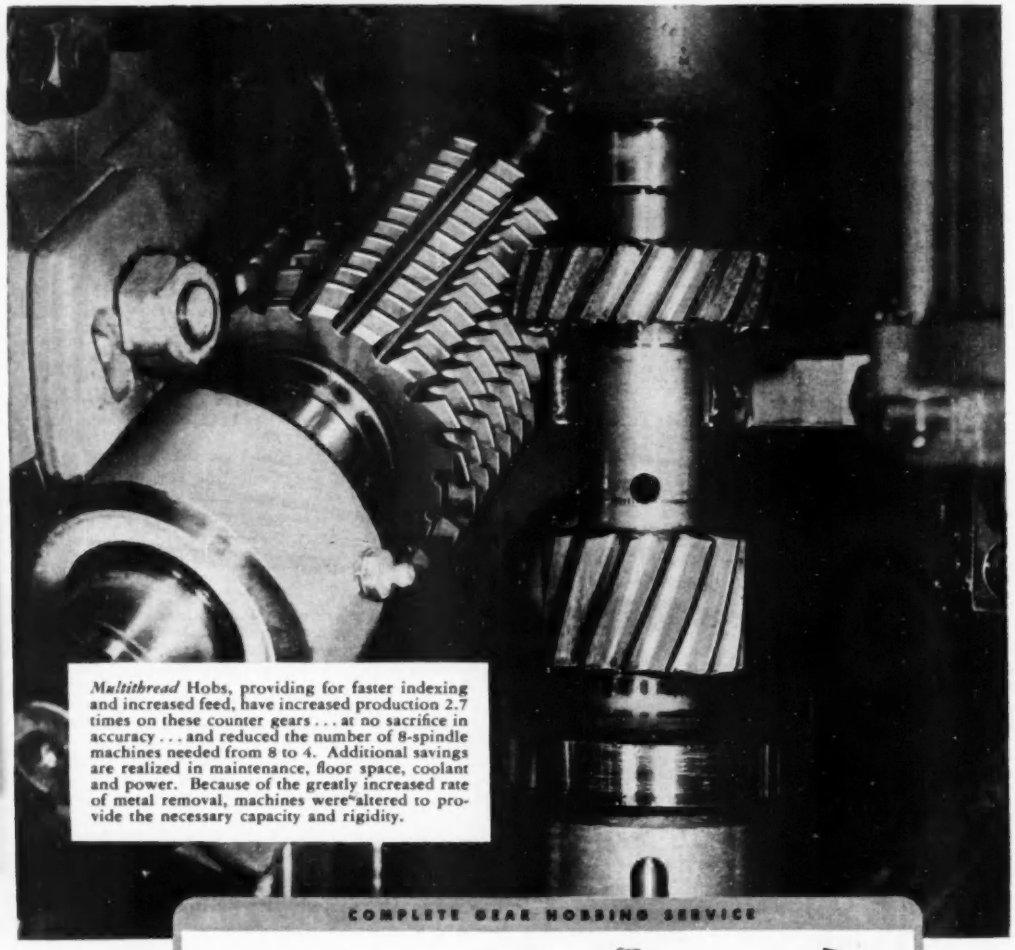
Wagner AIR BRAKES
The Only System with The Rotary Air Compressor

KU-6A

# Barber-Colman

## *Multithread Hobs*

**TRIM GEAR CUTTING COSTS**

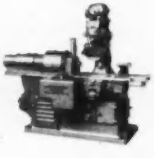


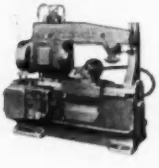
*Multithread* Hobs, providing for faster indexing and increased feed, have increased production 2.7 times on these counter gears . . . at no sacrifice in accuracy . . . and reduced the number of 8-spindle machines needed from 8 to 4. Additional savings are realized in maintenance, floor space, coolant and power. Because of the greatly increased rate of metal removal, machines were altered to provide the necessary capacity and rigidity.

**COMPLETE GEAR HOBBING SERVICE**

BARBER COLMAN

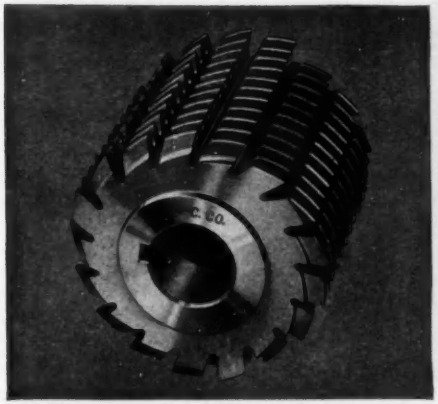




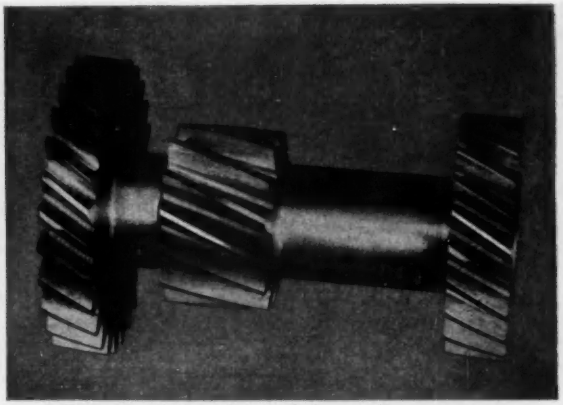




**HOBS • MACHINES • SHARPENING • TECHNICAL DATA**



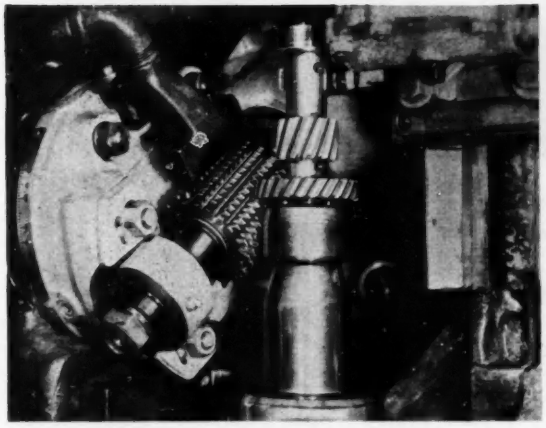
▲ These 4" x 4" *Multithread* hobs have more gashes for finer finish. A taper hole eliminates runout, holding the pitch line of the cut gears to maximum concentricity. Precision spacing of 3 leads produces involute and tooth spacing to preshave limits.



▲ These 27 and 22-tooth 9.25 pitch gears (for passenger car and truck transmissions) are forged from AISI 5145 or 8620-H steel. *Multithread* hobs have cut costs per gear to slightly over 1/3 former average. Lead errors are held within .0005". Production per hour has been increased from 26 to 82 gears (net, at 85% efficiency).

## *Automotive Plant Pioneers New Hob Application with Barber-Colman Hob Engineers. Disregards Conventional Hob Design to Almost Triple Production. Cuts Costs to ⅓ Previous Average.*

▼ The 27-tooth gear on the counter gear is hobbed at 156 rpm and .062" feed. Previous feed was .053". Face width is 5/8". Cutting time per gear has been reduced from 6.55 to 2.2 minutes. Remarkable savings are possible because of increased feed and faster indexing with *Multithreads*.



◀ The 22-tooth gear on the counter gear is hobbed at 156 rpm and .052" feed. Cutting time is 2.16 minutes. Single-thread ground hobs formerly cut at .043" feed. Hobbing time averaged 6.13 minutes per gear.

*Multithread* Hobs are a development by Barber-Colman engineers, providing faster indexing in the hobbing of gears. Instead of the usual single lead, *Multithreads* have several threads, and have produced unusual production increases on gear cutting jobs requiring very high rates of output.

As a result of production gains possible with hobs of this design, a fewer number of hobbing machines are required to complement the finish shaving and grinding equipment.

*Multithreads* are recommended only on the basis of comprehensive analysis of the job factors in individual plants. Therefore, we suggest that you ask a Barber-Colman Representative to call.

Write for additional information about the production increases possible with *Multithread* Hobs.

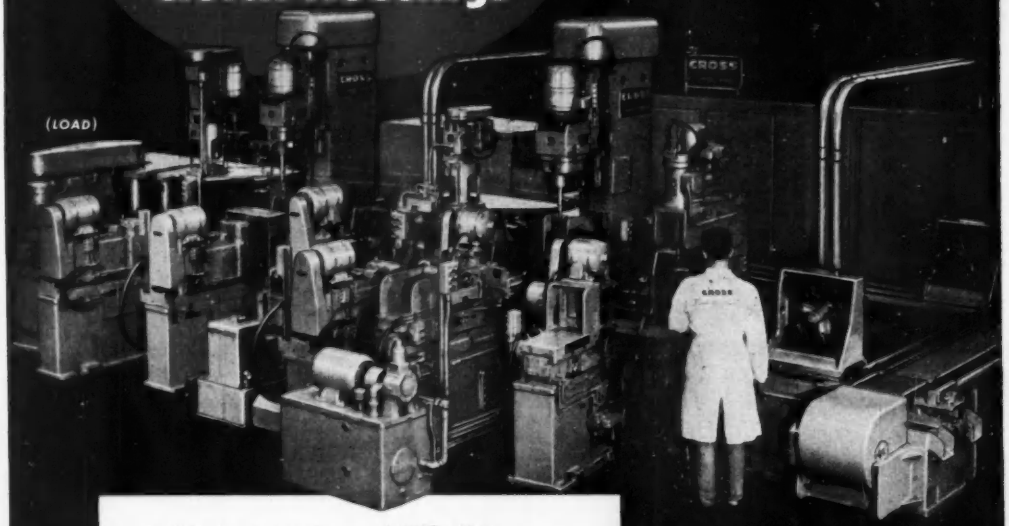
# Barber-Colman Company

GENERAL OFFICES AND PLANT, 362 ROCK STREET, ROCKFORD, ILLINOIS, U.S.A.

BUILDERS OF PRECISION GEAR HOBS AND MACHINES SINCE 1911

*Another Transfer-matic by Cross*

# Mills, Drills, Bores, Reams, Chamfers, and Taps Clutch Housings




- ★ 94 pieces per hour at 100% efficiency
- ★ Palletized work fixtures for holding part during all operations
- ★ 9 stations, including 1 for loading, 7 for cutting and 1 for unloading
- ★ Automatic transfer from station to station
- ★ Integral conveyor automatically returns palletized fixtures from unloading to loading station
- ★ Built-in chip conveyor

(UNLOAD)



*Established 1898*

THE CROSS CO.

DETROIT 7, MICHIGAN

*Special* MACHINE TOOLS

# "WHAT INDUSTRIES DO YOU SERVE?" asked Mr. Richards



Mr. Richards was considering us as a supplier of a high precision part for his product and, quite naturally, wanted to know how we stacked up on quality and service. "What industries do you serve?" he asked, as we started to show him through our plant. We said it would be a lot easier to name the industries we didn't serve . . . if any . . . because friction is an industry-wide problem and it's our business to fight it on all fronts.

When we returned to the office we thought of answering Mr. Richards' question in another, and perhaps more explicit way . . . by showing him a list of whom we serve. "Well," he exclaimed, "You must be good or you wouldn't have so many famous and discriminating customers on your books." We agreed with his deduction as you may, too, when you glance over the random list below.

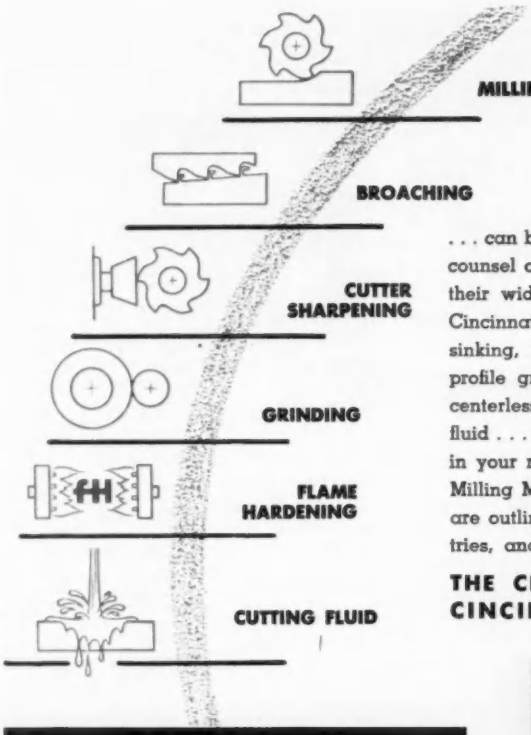
Naturally, we've been mighty proud to do business with so many of the leaders of American industry during our 35 years. We regard such patronage as a vote of confidence too priceless ever to jeopardize. And it would seem that YOU could rightfully regard it as complete evidence of our ability and capacity to satisfactorily serve YOUR Company. Aetna Ball and Roller Bearing Company, 4600 Schubert Avenue, Chicago 39, Illinois.

**IN DETROIT: SAM T. KELLER**
**2457 Woodward Avenue**

TOWMOTOR • WILLYS • AMERICAN BOSCH •
BARNES DRILL • BORG-WARNER • YALE & TOWNE • J. D. ADAMS • NASH •
STUDEBAKER • SHULER AXLE • BUDA • CARRIER • WAUKESHA MOTOR •
MASSEY-HARRIS • WESTINGHOUSE • OLDSMOBILE • SOUTH BEND LATHE •
JOY MANUFACTURING • ALLIS-CHALMERS • OLIVER • A. C. F. BRILL •
BROCKWAY MOTOR • CINCINNATI SHAPER • KAISER-FRAZER • CLEVELAND CRANE • McKISSICK •
INTERNATIONAL HARVESTER • FORD • CHECKER CAB • BASSICK • J. I. CASE •
MISSION MANUFACTURING • DIAMOND T MOTOR • CATERPILLAR • AUSTIN-WESTERN •
MINNEAPOLIS MOLINE • FRANKS MANUFACTURING • DARLING VALVE • JOHN DEERE •
WOODWARD GOVERNOR • ROSS GEAR & TOOL • STANDARD RAILWAY EQUIPMENT • AMERICAN RADIATOR • CRANE • FOSTER CATHEAD •
BEAUMONT IRON WORKS • HALLIBURTON • FAIRBANKS MORSE • ROCKFORD CLUTCH • MERRITT SOLEM • INTERNATIONAL DERRICK •

**Aetna**

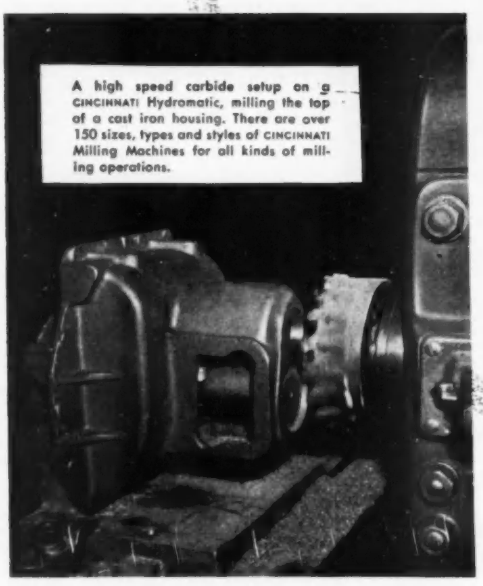
Standard and Special Ball Thrust Bearings • Angular Contact Ball Bearings • Special Roller Bearings • Ball Bearings • Standard and Special Steels • Gauges • Bushings • Miscellaneous Precision Parts



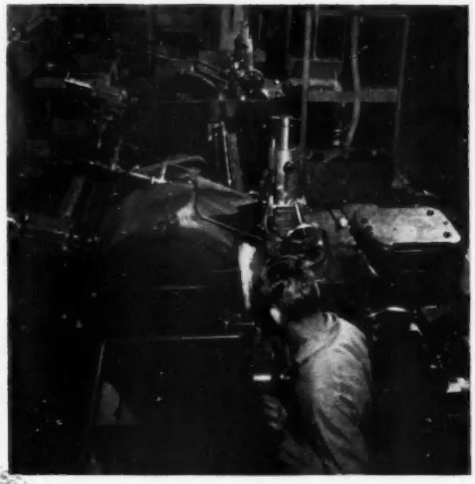

# your new products . . . new projects

. . . can be aided more than ever before by the dependable counsel of Cincinnati Milling and Cincinnati Grinders, and their wide variety of machine tools and allied products. Cincinnati metal cutting machines in the fields of milling, die sinking, broaching, cutter sharpening, optical projection profile grinding, centertype grinding, centerless grinding, centerless lapping . . . flame hardening machines . . . cutting fluid . . . and grinding wheels will perform yeoman service in your reconversion plans. All products of The Cincinnati Milling Machine Co. and Cincinnati Grinders Incorporated are outlined in Sweet's Catalog File for Mechanical Industries, and our general catalog. Write for catalog M-1684.

**THE CINCINNATI MILLING MACHINE CO.**
**CINCINNATI GRINDERS INCORPORATED**
**CINCINNATI 9, OHIO**



A high speed carbide setup on a CINCINNATI Hydromatic, milling the top of a cast iron housing. There are over 150 sizes, types and styles of CINCINNATI Milling Machines for all kinds of milling operations.



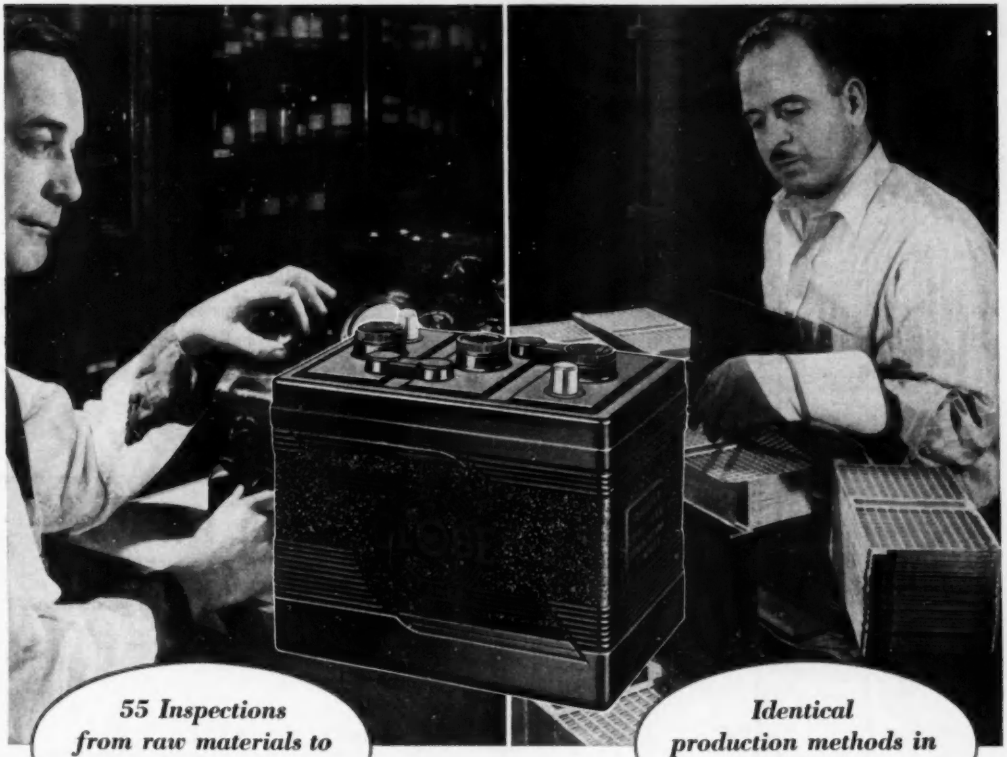
Continuously grinding 14" long piston rods at an output per man hour more than double the previous rate. Two CINCINNATI FILMATIC No. 3 Centerless Grinders are equipped with a Feedmatic Hopper and conveyor.

CINCINNATI

# CINCINNATI

CENTERTYPE GRINDING MACHINES • CENTERLESS GRINDING MACHINES
CENTERLESS LAPPING MACHINES • MICRO-CENTRIC GRINDING MACHINES
MILLING MACHINES • CUTTER SHARPENING MACHINES
BROACHING MACHINES • FLAME HARDENING MACHINES
OPTICAL PROJECTION PROFILE GRINDERS • CUTTING FLUID

# THE ENGINEERED BATTERY




## DEPENDABLY UNIFORM IN QUALITY AND PERFORMANCE

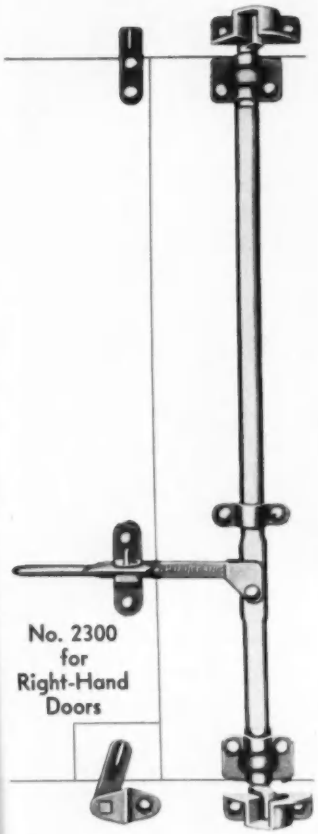
SURE, it's easy to build a battery! All you need is a box with some lead plates and an acid solution. Take it from there, however, and build millions of units in 13 different factories, and have all like units absolutely identical in quality and performance . . . that's something else again! Then you've really got something! Then you have a Globe-Union built battery. You also have an example of engineering at its finest...of research, development and production on an unprecedented scale, of infinite insistence on perfection at every stage of design, manufacture, assembly and inspection. Significant of the engineered precision with which a Globe battery is built are the 55 inspections through which every unit must pass from raw materials to finished product. That's a lot of inspections. But it produces the uniformly dependable "spinning power", split-second starting, and lasting quality for which Globe-Union built batteries are known around the world.

SPINNING POWER
GLOBE-UNION
SPLIT-SECOND STARTING

**GLOBE-UNION, INC.,** Milwaukee 1, Wisconsin

Atlanta, Ga. • Boston, Mass. • Cincinnati, Ohio • Dallas, Texas • Emporia, Kans. • Hastings-on-Hudson, N. Y. • Los Angeles, Calif. • Memphis, Tenn. Mineral Ridge, Ohio • Oregon City, Ore. • Philadelphia, Pa. • Reidsville, N. C.

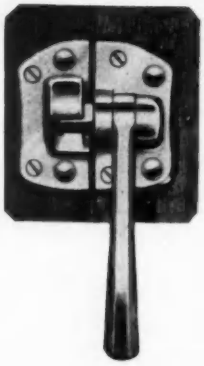
# IN YOUR BODY SPECIFICATIONS . . .
# *Include* MINER DOOR FASTENERS AND HINGES




## MINER
*TUBULAR BAR TYPE*
## DOOR FASTENER
for
Truck and Trailer Bodies

This new Miner Truck Door Fastener No. 2300 is applicable to all sizes of rear and side doors, either single or double, and particularly desirable for refrigerator bodies.

The left-hand design of this fastener is designated as No. 2350.

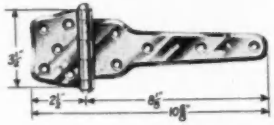


## MINER
*LATCH TYPE*
## DOOR FASTENER

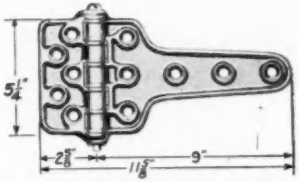
This device serves as an efficient door opener and closer as well as a dependable door lock. Operates on the cam principle, providing great leverage, thereby making it possible to open and close insulated doors without jerking or slamming.

# MINER DOOR HINGES
for TRUCK and TRAILER BODIES

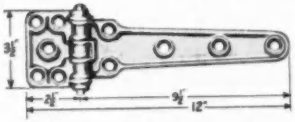
Miner Hinges combine attractiveness, strength and durability. They are exceptionally sturdy in construction, yet so designed that all excess weight is eliminated.
Made for flush-type doors.



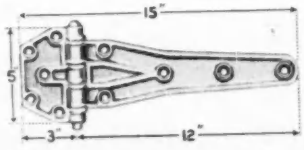

**No. 1855.** Especially desirable for small doors of ice cream bodies. Furnished in special bronze alloy, chrome plated, or in malleable iron, with special aluminum finish.



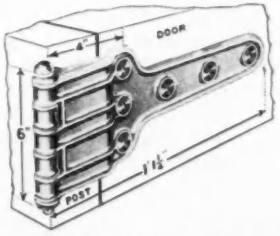

**No. 1673.** Recommended for large, heavy, insulated doors. Made of drop-forged steel, with special aluminum finish.




**No. 1857.** Recommended for medium size doors. Made of drop-forged steel, with special aluminum finish.

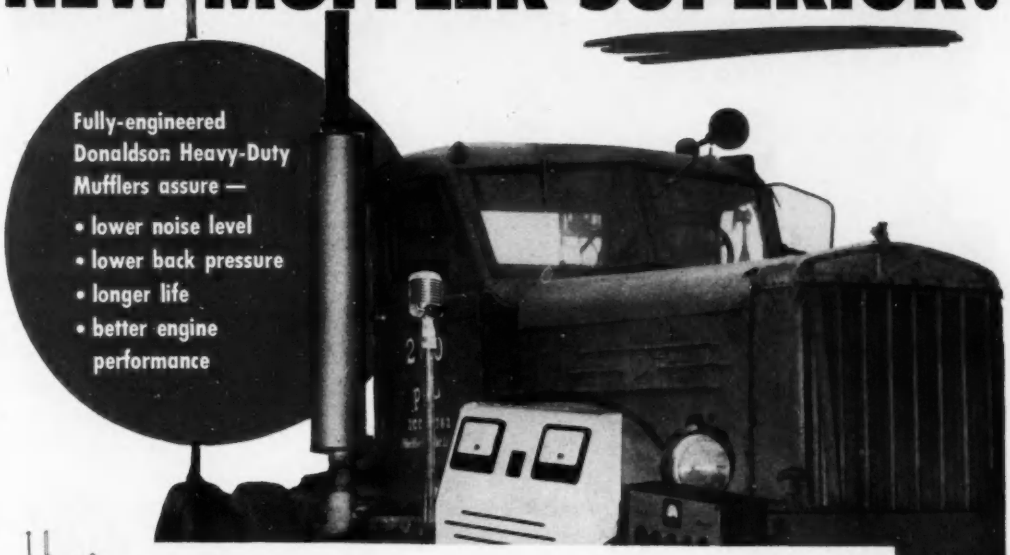



**No. 1954.** Recommended for large, heavy insulated doors. Made of malleable iron, with special aluminum finish.




**No. 1953.** Designed for use on rear doors. Permits doors to be swung to side of truck body. Made of malleable iron, with special aluminum finish.

# IMPARTIAL TESTS PROVE NEW MUFFLER SUPERIOR!






To help truck manufacturers and fleet operators satisfy public demand for noise abatement and to help reduce operator fatigue, Donaldson engineers developed this completely new exhaust silencing system. Lower noise level is obtained without power penalty! The back pressure of these Donaldson Mufflers falls well within the "acceptable range" permitted by engine manufacturers. Heavy-duty engines can now deliver their full rated power without objectionable exhaust noise.

In tests before impartial juries of highway officials, truck owners and truck manufacturers, the new Donaldson Mufflers were rated superior on overall performance. These tests proved that lower noise level and lower back pressure *can be combined* in a *fully-engineered* muffler. Furthermore this muffler is available at reasonable prices for popular models of heavy-duty trucks.

## DESIGNED FOR HIGH OUTPUT ENGINES

Donaldson engineered exhaust systems have these additional advantages: Reduced valve pounding, improved volumetric efficiency of the engine, decreased fuel consumption, less smoke and fumes, lower muffler jacket temperatures and less cab-panel drumming and vibration. You get them all when you specify Donaldson Mufflers on original equipment or use them to replace present units. Donaldson Mufflers, *made of aluminized steel throughout* to resist corrosion, last longer . . . 100,000 miles of service is not unusual!

Contact your local truck dealer for complete information on how the new Donaldson Mufflers perform. If he cannot supply Donaldson Mufflers, contact us direct.

Immediate shipment can be made for gasoline or Diesel engines in the 150 to 300 H.P. range. We will also send results of official motor truck association muffler tests upon request.



**Model M90010 vertical cab-mount muffler.**
*Dimensions: 9" diameter, 52" body length, 4 1/32" I.D. sleeves.*

**Model M01201 oval-type for under-chassis installations**
*Dimensions: 10"x15" oval, 25" body length, 4 1/32" I.D. sleeves.*

*Fully-guaranteed by the Donaldson Co., Inc., world's largest manufacturer of heavy-duty air cleaners*

**DONALDSON**
**Fully-Engineered**
**MUFFLERS**

**666 PELHAM BLVD., ST. PAUL 4, MINNESOTA**

*Precision finishing*

## another feature of Accurate service



## . . . and it lowers
# *the ultimate cost of your springs*

THE accuracy with which the ends of your springs are finished—whether they are looped, hooked, ground or what have you—can be of vital importance to the assembly and/or operation of your product. Carelessness, poor design or use of improper equipment in this vital part of spring manufacture can add many dollars to the ultimate cost of your springs.

Here at Accurate, skilled springmakers know the importance of accuracy in finishing ends . . . we have the most modern equipment to do the job right and economically . . . and our practical, experienced spring engineers can often recommend modifications in end design to speed assembly of your product or to make it perform better.

This is just one of many reasons why Accurate service saves you money in the long run. We'll be happy to discuss what we can do for you. Write or phone today.

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**3810 W. Lake Street**
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**WRITE TODAY for your copy of the new revised Accurate Handbook of Technical Data on Springs. It's full of short cuts for making spring calculations.**




*Be sure the springs you buy are Accurate*

*Accurate Springs*

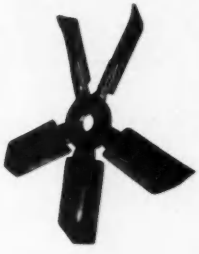
*Springs*
*Wire Forms*
*Stampings*

# SCHWITZER-CUMMINS COMPANY

# Specialists in COOLING FANS

FANS
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FANS







Designing and manufacturing cooling fans, all types and sizes, has been an important part of our business for 31 years. We have produced untold millions of fans for all sorts of services, all over the world. Often we are the only source for fans for large automotive programs, always we are busy producing for a multitude of smaller users whose requirements range through the entire scale of types, sizes and materials and carry all the special features incident to fans. It is routine for us to be asked to develop and build a fan for some problem job of cooling, something that will improve performance or reduce costs, or both.

All this has created a skill and understanding about fans that can be invaluable to any manufacturer using them in his product. If you are in need of a specialist's assistance and a good source of supply, we will be glad to serve you through our engineering and manufacturing groups and the facilities of a fine research and fan testing laboratory.

Illustrated are three outstanding examples of an unusual fan design developed by us—all of the laid-back tip type, all with high capacity and very quiet—one 18″ in diameter, 3-blades, one 21″ diameter, 5-blades, one 26″ diameter, 6-blades. All these fans completely fulfill the objectives of the buyers and save them money. All are in large production. These illustrations present a small example of the diversification of our fan operations.

*A thermostatically controlled fan, simplified and with many advantages for applications where a rate of cooling variable with the work is desirable, is a recent development of our own engineering.*

**COOLING FANS FOR OVER 31 YEARS**

OTHER PRODUCTS

- OIL PUMPS
- WATER PUMPS
- SUPERCHARGERS
- VIBRATION DAMPERS
- AUTOMATIC SHAFT SEALS

**SCHWITZER-CUMMINS COMPANY**
1125 MASSACHUSETTS AVENUE
INDIANAPOLIS 7, INDIANA, U.S.A.

# Plus Performance

*for temperature control of engines with pressurized cooling systems: for today's and tomorrow's cars and trucks*



DOLE DV

# DOLE "DV" Thermostats

DOLE DV THERMOSTATS used in leading makes—have proved their dependability and capacity to operate positively against the higher pump pressures in modern sealed cooling systems.

DOLE DV THERMOSTATS are also more efficient for the modern cars with open cooling systems.

In a word, DOLE DV THERMOSTATS help *all* cars of advanced design to give top performance—quick warm-up, savings of gasoline, oil and motor wear. Plus, of course, quick heat from the car heater.

**Dole Thermostats are available in various sizes and models to meet all installation requirements.**



DOLE DV 1



DOLE DV 2



DOLE DV 3

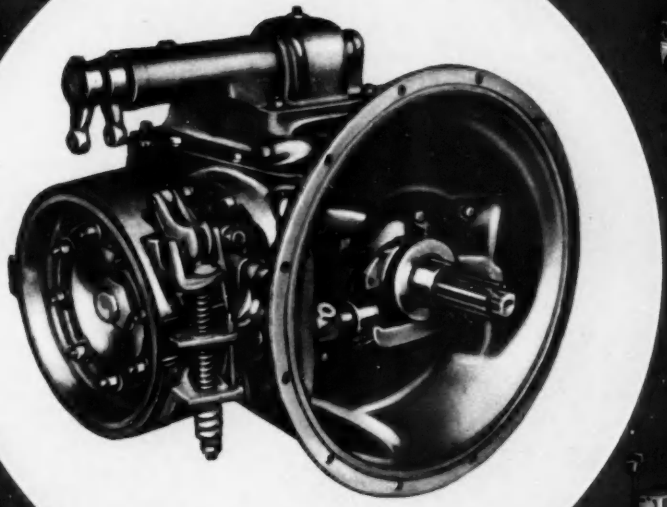
CONTROL WITH DOLE

**THE DOLE VALVE COMPANY** • 1901-1941 Carroll Avenue, Chicago 12, Illinois • Detroit • Los Angeles • Philadelphia

To supply products with great competitive merit . . .

work with CLARK

...tury of service to transpo...
tion in all its forms.



CLARK EQUIPMENT COMPANY,

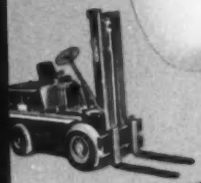
Buchanan, Michigan

SEE NEXT PAGE FOR MORE ABOUT CLARK PRODUCTS

## Quality is the Foundation Stone of the

# CLARK *Leadership Line*

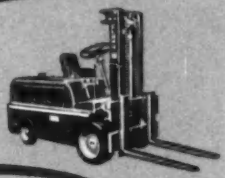






















By today's standards, CLARK'S first materials-handling machine wasn't much for looks; but in 1917, when it was introduced, looks weren't so important. The *important* thing about that machine was that it was endowed with superlative quality and that it did the job for which it was designed.

On that memorable day in 1917, CLARK assumed the role of pacemaker in its sphere of materials handling, and determined never to relinquish it. Basing each of its innumerable advances on the same high quality, the same engineering skill and integrity, and the same fidelity of purpose that characterized its initial product, CLARK has developed the many varied materials-handling machines that constitute the acknowledged LEADERSHIP LINE.

These tools, which make for better living, better and more economic production and distribution—these durable tools—these quality tools—never have failed to serve with distinction.

That's why we say:

*You purchase for profit when you purchase from Clark*

**CLARK** ELECTRIC AND GAS POWERED **FORK TRUCKS**

AND POWERED HAND TRUCKS · INDUSTRIAL TOWING TRACTORS



INDUSTRIAL TRUCK DIVISION · CLARK EQUIPMENT COMPANY · BATTLE CREEK 12, MICH.

Please send: ☐ Movie Digest ☐ Products Catalog ☐ Material Handling News

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**PRODUCTS OF CLARK—TRANSMISSIONS · FORK TRUCKS & TRACTORS · AXLE HOUSINGS · GEARS AND FORGINGS · RAILWAY CAR TRUCKS · ELECTRIC STEEL CASTINGS · AXLES · TRACTOR UNITS**

# WE ARE READY!

**Defense production calls for *precision*—and precision points directly to PRATT & WHITNEY.**

**P&W Precision has spurred production through four major wars since 1860. It is invaluable today in all Plants, including those of Sub-Contractors. Parts machined and gaged with P&W precision on the home grounds, and in widely separated plants, *fit accurately*.**

**Right now our huge, completely equipped plant is well primed for any emergency. Our experienced engineers and craftsmen are thoroughly trained in the P&W tradition for precision. Know-how, skill and accuracy are reflected in all the equipment they build—P&W *Precision* Machine Tools, Cutting Tools and Gages.**

**With them, you'll take stepped-up defense production quotas in stride.**

## PRATT & WHITNEY PRECISION



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- Jig Borers
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- Keller Cutters and Tracers
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- Drills
- Solid Carbide and Carbide Tipped Tools
- Precision Screw Plates
- Kellerflex Steel and Carbide Burs
- Metal Slitting Saws

### ..AND GAGES

- Cylindrical Gages
- Thread Gages
- Pipe Thread Gages
- Plain Snap Gages
- J-S Roll Thread Snap Gages
- A. P. I. Gages
- Hoke and USA Precision Gage Blocks
- Supermicrometers
- Standard Measuring Machines
- Electrolimit Comparators
- Air-O-Limit Comparators
- Tri-Roll Thread Comparators
- Continuous Gages
- Multiple Station Gages
- Special Gages

**PRATT & WHITNEY**
Division Niles-Bement-Pond Company
WEST HARTFORD 1, CONNECTICUT

*Symbol of Accuracy*
**SINCE 1860**






# the South Wind "978"

## keeps vision clear, vehicles warm

● Keeping Army Vehicles rolling in the coldest weather—that's South Wind's famous "978"! This powerful forced-air heater takes the frost off the windshields, keeps the freeze out of cabs. It preheats, heats, and defrosts in any type of military vehicle in temperatures as low as 70 below zero. Built to Army Ordnance specifications . . . widely accepted by the Army for its winterization program . . . the "978" is compact, simplified in design—easy to install, economical to maintain. Safe because the combustion air system is completely separated from the ventilating air stream. Fast acting because warm air circulation doesn't depend on engine heat.

**At Your Service:** The cooperation of Stewart-Warner's widely experienced staff of heating engineers. You can enlist their help *with confidence* when working this practical heating system into your Ordnance program . . . and in fashioning future designs for commercial car heating, too. For information, complete details, write Stewart-Warner at the address below—today!

**Stewart-Warner Corporation**

South Wind Division—Indianapolis 7, Indiana





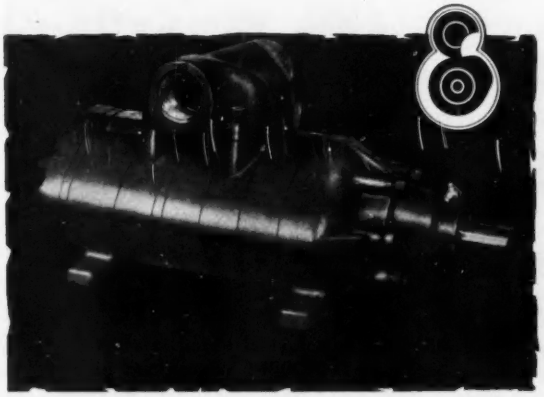

# Berry hydraulics can help SMOOTH the way

For those who design and manufacture mobile equipment where *lazy horsepower* could be put to useful work, the new BERRY hydraulic power transmission system is the answer to your needs. The hydraulic units in this system may serve either as a pump or as a fluid motor, with equal performance in either direction of rotation.

BERRY hydraulic pumps and motors feature simple construction, incorporating the unique rotary piston principle which eliminates frictional contact between operating parts and their mating members. Among the outstanding features are:

—high variable input or output speeds
—smooth, positive, pulsationless power delivery
—dependable performance, long life, minimum upkeep
—instantaneous reversibility

Mobile trucking carriers such as liquid fuel transports, refrigerated trailers, armored equipment, truck winches, portable conveyors and drilling rigs, and others make use of BERRY hydraulic power transmission systems to get greater efficiency at less cost.



*Immediate Delivery In Limited Quantities of Most Models*

**SPECIAL ENGINEERING SERVICES**

Why not let the BERRY hydraulic engineers help you plan your next move toward greater utility through the use of smooth hydraulics? An inquiry stating your requirements, will bring full particulars.

**BERRY MOTORS, INC.**
**CORINTH, MISSISSIPPI**

# YOU GET ALL 3—

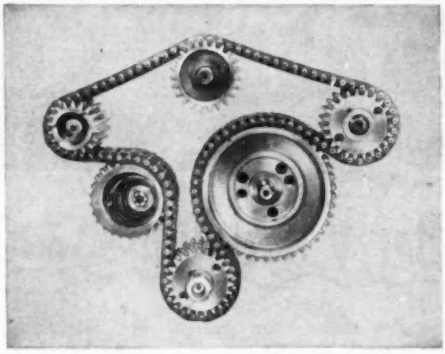
- AUTOMATIC JOINT SNUGNESS
- SMOOTHER OPERATION
- GREATER DESIGN FLEXIBILITY

## ...when you use LINK-BELT ...the world's finest timing chain from the world's largest chain plant

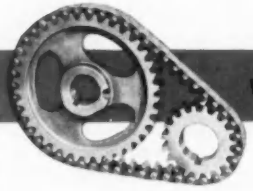
YES, you get superior performance . . . greater design flexibility when you work with Link-Belt Timing Chains and Sprockets. It's the highest load carrying chain on the market. Chains now being used by some leading car manufacturers measure only $^{11}/_{16}$ inches in width. Narrower designs can mean a vital saving of space.

Equally important — the continuing research and unsurpassed facilities of the vast, new Link-Belt plant combine to make Link-Belt your best bet for a dependable chain source. Our engineers will supply a test drive to your specifications. There's no obligation, of course. Details are in engineering catalog No. 2065.

12,331

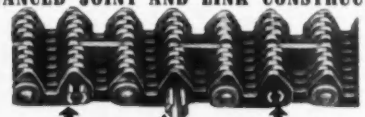


Link-Belt Duplex Timing Chain combines timing and accessory drive functions on this popular engine. Either face of the chain meshes with wheels.



### Why SEGMENTAL BUSHINGS mean better performance for your engine

### ADVANCED JOINT AND LINK CONSTRUCTION



Removable case-hardened segmental liners or bushings extend across entire chain width —double bearing surface . . . halve bearing pressure on joint

Bushing takes wear at joint—elongation of link hole or eye is negligible

Broached holes in links form lock grip for bushings

Smooth, case-hardened pin, free to rotate between segmental bushings, presents every part of surface for wear

### AUTOMATIC JOINT SNUGNESS



After initial assembly in chain, bushings are straight

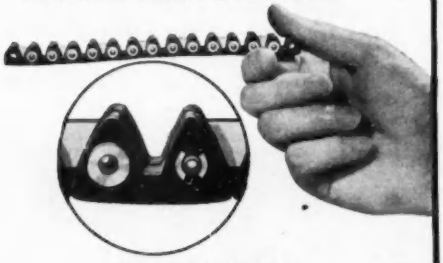


Segmental bushings are made with slight bow



Bow in bushing acts to keep a snug joint, maintaining chain pitch

### ANTI-BACK-BEND . . . ANTI-WHIP



Built-in check in joint limits bushing rotation, checks back-bend and whip

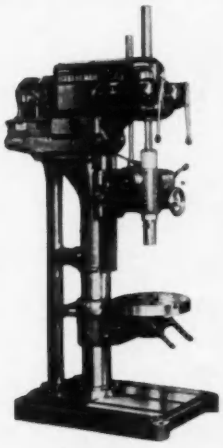
**LINK-BELT**

TIMING CHAINS AND SPROCKETS

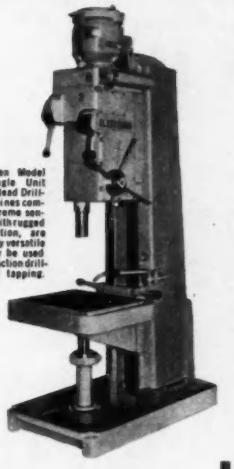
LINK-BELT COMPANY: 220 South Belmont, Indianapolis 6, Ind.
Offices in principal cities

# THE CLEEREMAN LINE

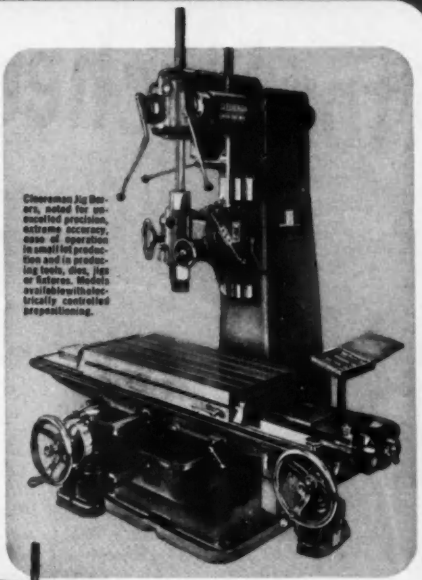
## OF PRECISION JIG BORERS and DRILLING MACHINES



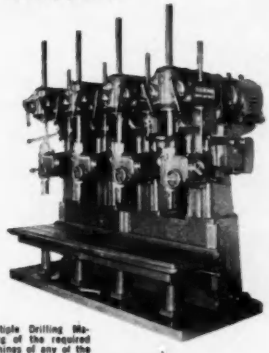
Cleereman Round Column Drilling Machines produce accurate holes at high speed and at low cost and are general purpose machines with high production.



Cleereman Model 325 Single Unit Sliding Head Drilling Machines combine extreme sensitivity with rugged construction, are extremely versatile and may be used for production drilling and tapping.



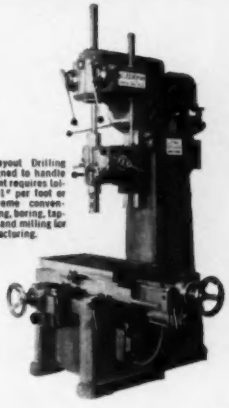
Cleereman Jig Borers, noted for unexcelled precision, extreme accuracy, ease of operation in small lot production and in producing tools, dies, jigs or fixtures. Models available with electrically controlled prepositioning.



Cleereman Multiple Drilling Machines consisting of the required number of machines of any of the three types supplied to meet individual requirements.



Cleereman Box Column Drilling Machines have an exceptionally rigid construction for continuous heavy duty work combined with accuracy and the speed required for low cost production.



Cleereman Layout Drilling Machine designed to handle layout work that requires tolerances of .001" per foot or broader. Extreme convenience for drilling, boring, tapping, reaming and milling for jigless manufacturing.

BRYANT Machinery & Engineering Company

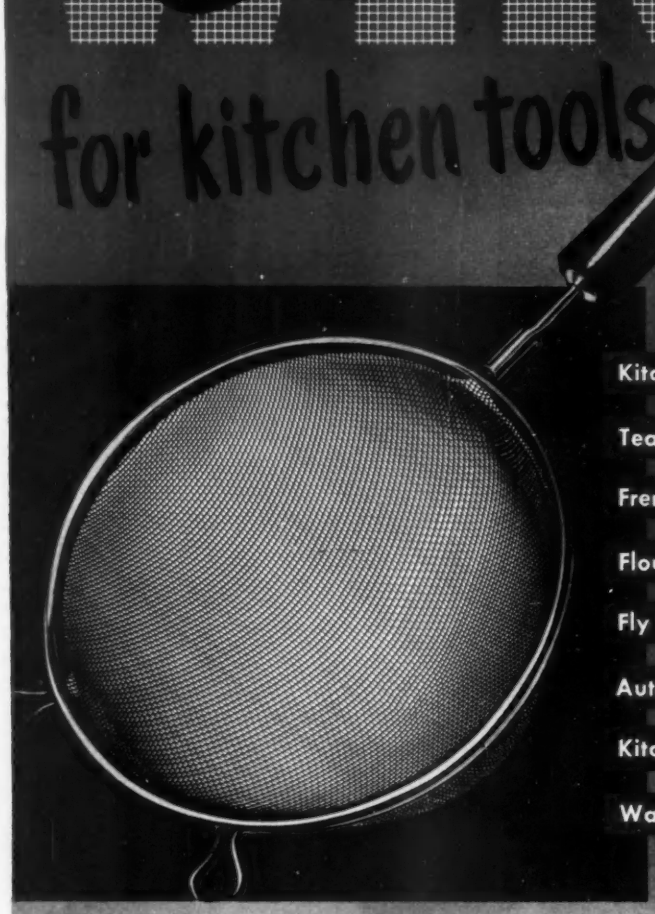
General Office
400 West Madison Street, Chicago 6
Representatives in Principal Cities

*Affiliated with—*

**CLEEREMAN MACHINE TOOL CO. Green Bay, Wis.**

BUILDERS OF PRECISION JIG BORERS & DRILLING MACHINES

# WIRE CLOTH for kitchen tools



Kitchen Strainers

Tea Strainers

French Fry Baskets

Flour Sifters

Fly Swatters

Automatic Dishwasher Baskets

Kitchen Range Air Filters

Water Faucet Filters

If you use wire cloth—whether it's for dishwashers or diesels . . . automobiles or aircraft . . . flour sifters or floor furnaces . . . french fryers or farm tractors—1-inch to 120-mesh—consult Reynolds Engineers.

**REYNOLDS WIRE DIVISION**
NATIONAL-STANDARD COMPANY

DIXON, ILLINOIS

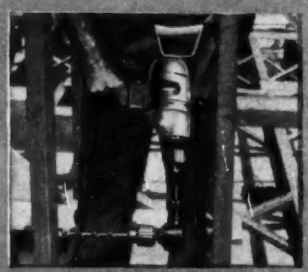
NS NATIONAL-STANDARD Company NILES, MICHIGAN

# Have you a DRILLING problem that Black & Decker DRILLS can solve?

## Here's how thousands of plants have used them to speed up jobs!



In **MAINTENANCE** — The versatile B&D Drill Line gives you hard-working drills for maintenance as well as production. They drive twist drills, wood augers, Hole Saws. And their husky construction stands up under the hauling maintenance tools usually take.



In **CONSTRUCTION**—Whether you're building or modernizing, B&D Drills give you a wide selection. Big, rugged Drills for heavy-duty boring, like this B&D ½" Heavy-Duty model with right angle attachment. Small, compact ¼" models for drilling lead holes in building cabinets, putting up shelves, etc.



In **PRODUCTION**—Dependable speed, power, stamina, easy handling make B&D Drills the top choice of thousands of production men. The powerful, compact B&D ¼" HOLGUN* shown here is a sample of the wide range of models and capacities you have to choose from.

WATCH a Black & Decker Drill on the job and you'll see speedy drilling, easy handling, trouble-free running. Examine its engineering and you'll find a powerful B&D-built motor, tailored for the tool; full ball-bearing construction; extra-tough gears, shaft and chuck spindle and husky housing. Check the B&D Drill Line and you'll discover an unmatched choice of 25 models in capacities from ¼" to 1¼" in steel, double in hardwood. A choice of handle arrangement for easiest operation. A choice of speed, power and price in most capacities.

That's why it makes sense to think of Black & Decker Drills first when you're up against a drilling problem. They'll save you time, money and man-hours. And as a *plus*, you get finest service for longer tool life from any one of 29 B&D-owned-and-operated Factory Service Branches. See your nearby Black & Decker Distributor for thorough demonstrations. Write for free catalog to: THE BLACK & DECKER MFG. CO., 635 Pennsylvania Ave., Towson 4, Md.

LEADING DISTRIBUTORS EVERYWHERE SELL

B&D Black & Decker

PORTABLE ELECTRIC TOOLS

**WORLD'S LARGEST, MOST COMPLETE LINE**

*Trade Mark Reg. U. S. Pat. Off.

# Non-Collapsible PRODUCTION




# for Collapsible Tubes

With integrated production, where failure of one machine can stop a whole line, Peerless Tube Company chose Clearing presses for the extrusion operation which is the first stage in their lines. In the Bloomfield, New Jersey, plant, a group of 75-ton Clearings is now at work operating at 60 strokes per minute.

Clearing presses have demonstrated convincingly that they are dependable and can aid in maintaining production schedules at Peerless and many other companies throughout the world. We can help you with your mass production problems. Write us for details.

**CLEARING MACHINE CORPORATION**

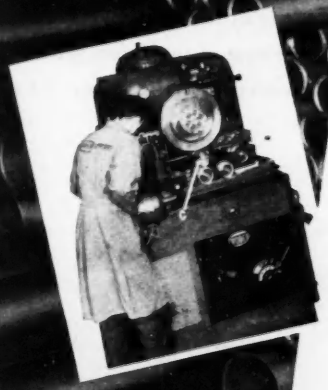
6499 WEST 65TH STREET ★ CHICAGO 38, ILLINOIS

## CLEARING PRESSES

THE WAY TO EFFICIENT MASS PRODUCTION

CMC CLEARING

# Quality and Speed do make it pay making pipe and tubing "The Yoder Way"



The fine finish, cleanliness, light weight, strength, ease of fabrication and low cost of tubing made the Yoder way spell SALEABILITY, in big letters. That's why more and more manufacturers are constantly finding new uses for tubing in their product designs.

In a little over ten years, the products of Yoder tube mills have found their way to every country on the Globe, and Yoder tube mills, at home and abroad, turn out billions of feet every year, in sizes from ¼" up to 20" dia.

Low first cost, compactness, simplicity of operation, and high production, are features of Yoder electric-weld tube mills which make the investment highly attractive. Because of multiplying uses, the market for tubing has been and still is expanding more rapidly than the supply. A surprisingly large number of operators, since installing their first Yoder mill, have added others. 34 owners now operate a total of 90 Yoder mills.

Whether you contemplate making pipe or tubing for resale or for your own use, send for 68-page Book of information on the mechanics as well as the economics of making it "the Yoder Way."

*Consultations and Estimates without obligation on your part . . .*

**THE YODER COMPANY**
**5553 Walworth Avenue • Cleveland 2, Ohio**

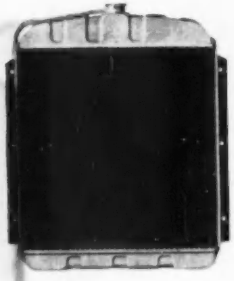
*Complete Production Lines*

- ★ **COLD-ROLL-FORMING and auxiliary machinery**
- ★ **GANG SLITTING LINES for Coils and Sheets**
- ★ **PIPE and TUBE MILLS–cold forming and welding**

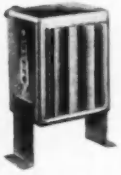
ENGINEERING YODER MANUFACTURING

# YOUNG

## FOR EFFICIENT HEAT TRANSFER



STAMPED TANK SHEET METAL RADIATORS



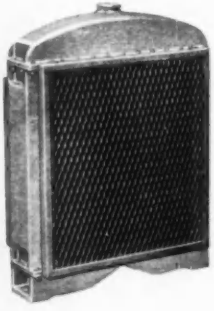
TRUCK, BUS, AND LOCOMOTIVE CAB HEATERS

### IN ANY AUTOMOTIVE APPLICATION

● From small car heater cores that can be held in the hand to the huge VAD Vertical Air Discharge coolers and condensers that dwarf a man, Young Engineers have developed a complete line of products capable of handling any heat transfer requirement. Young's experience of more than two decades insures products of top efficiency and long service at a mini-

COMPRESSOR RADIATORS AND INTERCOOLERS WITH FABRICATED STEEL CASING AND "MONO-WELD*" STEEL TANKS

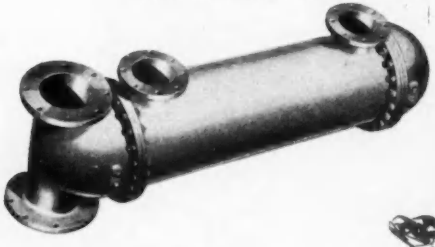




CAST TANK RADIATORS



HEAT EXCHANGERS, OIL, WATER, LIQUID AND GAS COOLERS





YOUNG RADIATOR COMPANY

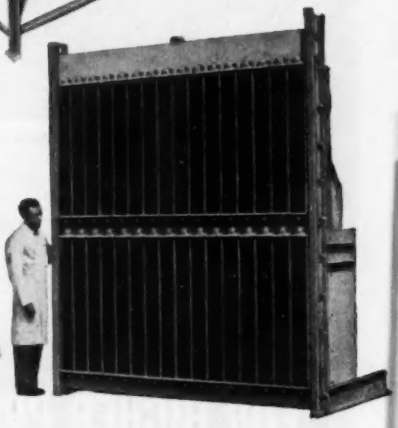
# Young Quality

T. M. Reg. U. S. Pat. Off.

VERTICAL DISCHARGE
COOLERS AND CONDENSERS

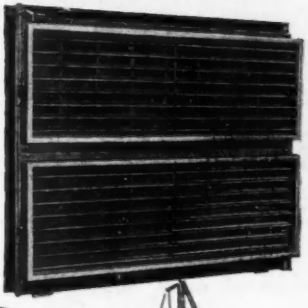


mum of cost. Young Engineers take great pride in their ability to design specialized equipment for performing a combination of services. Such versatility makes available a single source for your heat transfer needs . . . assures products that are engineered to work perfectly together. Catalog 148, available upon request, illustrates the broad range of the Young line.



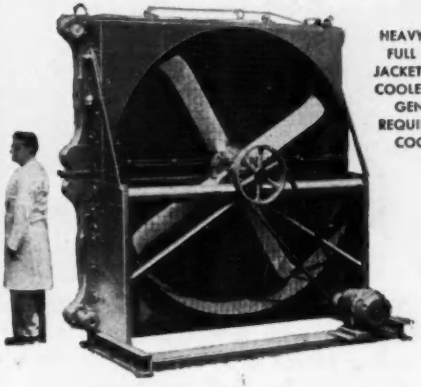
"MONO-WELD*"
SECTIONAL TYPE RADIATORS

LOCOMOTIVE RADIATORS
COMPLETE WITH AUTOMATIC SHUTTERS



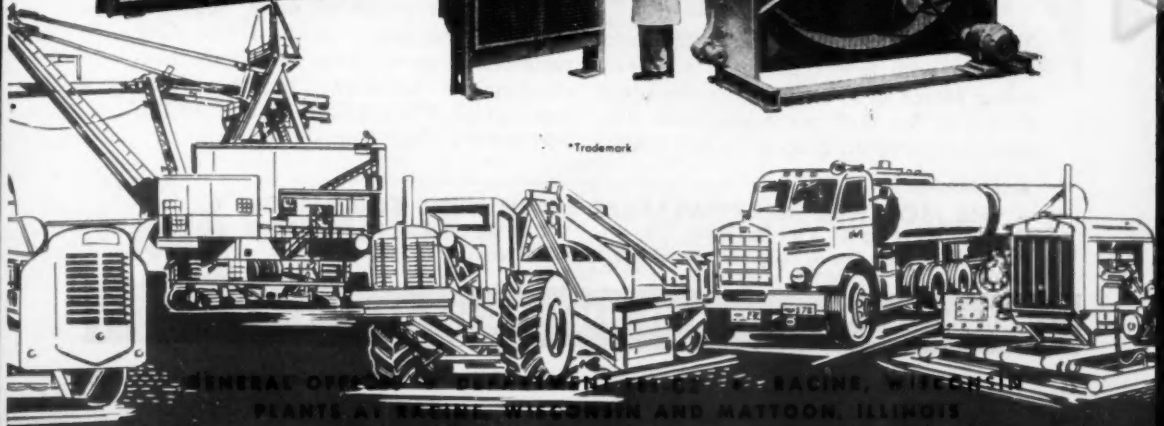
"MONO-WELD*" STEEL TANK
AND SIDE MEMBER
HEAVY DUTY RADIATOR





HEAVY DUTY,
FULL FLOW
JACKET WATER
COOLERS AND
GENERAL
REQUIREMENT
COOLERS

*Trademark



GENERAL OFFICES, DETROIT 32, MICH. • RACINE, WISCONSIN
PLANTS AT RACINE, WISCONSIN AND MATTOON, ILLINOIS




**M. & M. DUPLEX MILLING AND CENTERING MACHINE**
*Part — automotive pinion*
*Operation — mill both ends and center drill*
*Production — 220 pieces per hour at 100%*

# FOR HIGHER PRODUCTION

*Combine Operations*

## ON MOTCH & MERRYWEATHER SPECIAL MACHINES

*The Motch & Merryweather milling head features rigidity at the tool point.*

You can be sure of getting higher production with lower cost per piece by using Motch & Merryweather machines designed for multiple operations. The machine pictured here mills and center drills a vast range of parts, some of which are shown in white above. Our representative will help you obtain thorough-going accuracy, together with *production, PRODUCTION,* and *MORE PRODUCTION.* Contact us *now.*

*Manufactured by*

**THE MOTCH & MERRYWEATHER MACHINERY COMPANY**
**715 PENTON BUILDING • CLEVELAND 13, OHIO**
*Builders of Circular Sawing Equipment, Production Milling, Automatic and Special Machines*

PRODUCTION-WITH-ACCURACY MACHINES AND EQUIPMENT



# insist on "buried" integrity in your products

In the durable goods field most of the products are composed of many component parts. Acadia Synthetic Rubbers are contributing importantly to the superiority of thousands upon thousands of these products on land, sea, and in the air—from battleships to tiny instruments. For years manufacturers in hundreds of industries have found by experience that, with Acadia Synthetic Rubber parts in their products, they will never have trouble from that source. Acadia is a "buried" but vital component for products of highest integrity. Insist upon it!



**• for every synthetic rubber requirement**



- sheets
- tubing
- strips
- channel
- washers
- seals
- bellows
- gaskets
- rings
- extrusions
- cut parts

*Resists oil, age, wear, heat, light*

**ACADIA Synthetic PRODUCTS**

Processors of Synthetic Rubber and Plastics • Sheets Extrusions • Molded Parts

**DIVISION WESTERN FELT WORKS • 4035-4117 OGDEN AVENUE, CHICAGO 23, ILLINOIS**

*Can you match these production figures?*

# THIS Verson KNUCKLE JOINT PRESS forms 260 flywheels per hour




In the plant of a leading automobile manufacturer, the 2000 ton Verson Knuckle Joint Press illustrated stamps out automatic drive flywheels at the rate of 260 per hour. A flat blank is transformed into a flywheel ready for machining in a single operation in less than 14 seconds!

The acceptance of press forming of precision parts under tremendous force is growing rapidly. By using the knuckle joint's characteristic of applying high pressure over a concentrated area it is often possible to produce superior quality parts at a substantially higher rate and at a fraction of the cost of conventional methods.

Verson Knuckle Joint Presses meet all requirements for work of this type. Their rugged, all steel construction in combination with Verson design gives them the accuracy, power, speed and dependability so vital to this type of service. Write for complete details outlining the nature of your problem.

Originators and Pioneers of Allsteel Stamping Press Construction

**VERSON ALLSTEEL PRESS COMPANY**

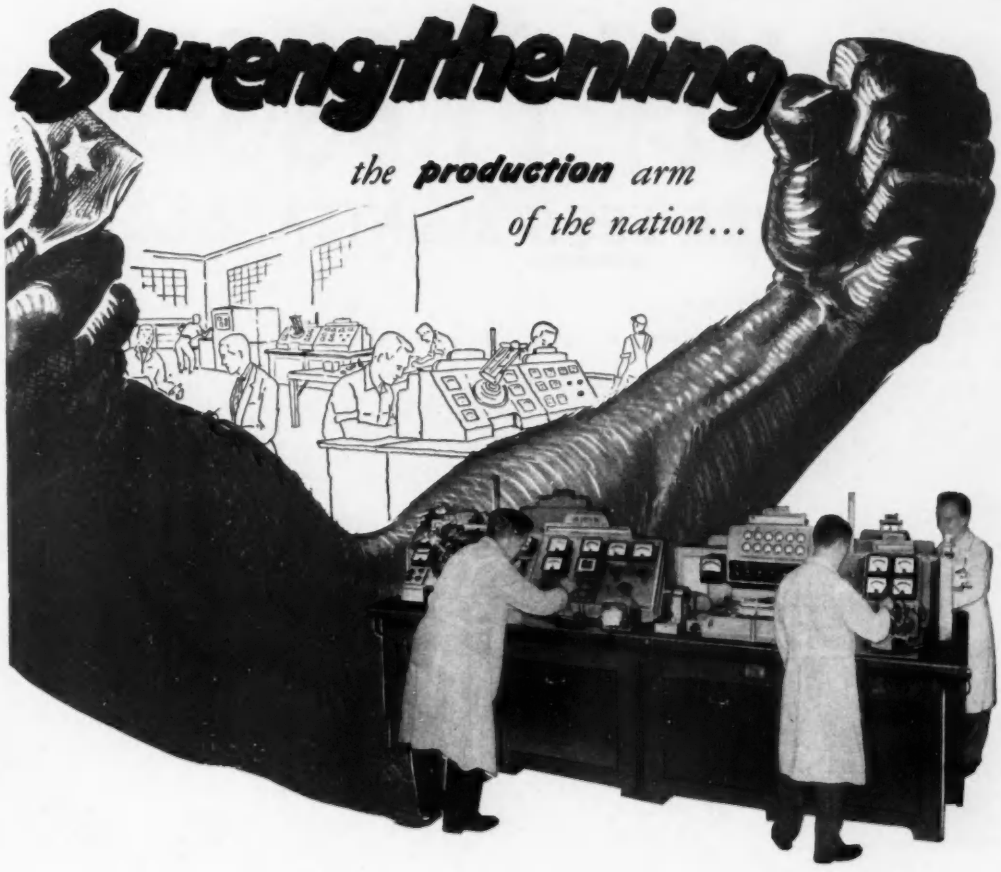
9307 South Kenwood Avenue, Chicago 19, Illinois — Holmes Street and Ledbetter Drive, Dallas 8, Texas

A VERSON PRESS FOR EVERY JOB FROM 60 TONS UP!

MECHANICAL AND HYDRAULIC PRESSES AND PRESS BRAKES • TRANSMAT PRESSES • TOOLING
DIE CUSHIONS • COMPRESSION AND TRANSFER MOLDING PRESSES

# Strengthening

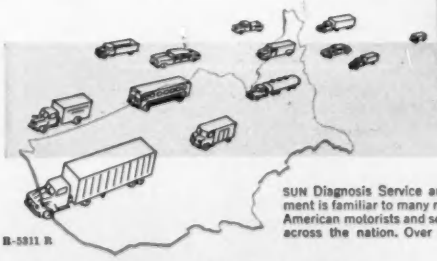
*the* ***production*** *arm of the nation...*



IN the factories of car builders, engine builders and other American industries, special SUN Testing Instruments are adding muscle to the nation's production arm. Finer, more efficient vehicles, engines and other machinery are being produced with substantial savings in time, costs and manpower by substituting "Testwork" for "Guesswork" with these SUN Precision Instruments.

Transportation, a key factor in the production arm of the nation, is likewise being strengthened through the use of SUN Testing Equipment. Tens of thousands of the nation's largest repair and maintenance shops depend on SUN Testing Instruments to quickly locate causes of engine failure.

Literally thousands of SUN Precision Testing Instruments are built yearly to supply American industrial, military and governmental needs. SUN welcomes the opportunity to apply its long years of experience in the precision testing instrument field to help solve problems that will further strengthen the production arm of the nation.



B-5811 B

SUN Diagnosis Service and Equipment is familiar to many millions of American motorists and servicemen across the nation. Over 300 SUN Field Representatives assure the efficiency of this service by training mechanics, servicing equipment and guiding Diagnosis Procedures. In addition, 17 strategically located SUN Technical Training Schools that provide specialized advanced training for "key" operators.

**Sun**

**ELECTRIC CORPORATION**

6373 Avondale Avenue, Chicago 31, Ill.

# DANLY PRESSES

## REQUIRE LESS MAINTENANCE...

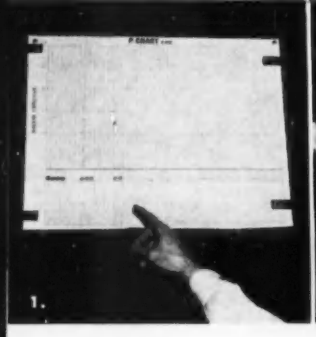
*... at International Harvester's East Moline works — where performance is a matter of careful record!*



International Harvester Corn Picker

The 400-ton Danly Straight Side Press shown at right has required an amazingly small amount of maintenance work—an average of less than 2½ hours a week over the last twelve months. And a large portion of this time was consumed by routine press attention such as oiling and adjusting.

Write today for your copy of the Danly Straight Side Press Catalog and see how unique Danly Press construction and design features will achieve similar press operating cost reduction for you.



1.



2.

**1. QUALITY CONTROL** procedures are highly developed in the Harvester production system. Parts from every press are completely checked at least once each shift and with every die change. Charts like the one shown here hang at each machine station and provide a complete running record for statistical analysis purposes.

**2. MAINTENANCE RECORDS** are maintained separately for every machine, providing an exact and complete history of required repair work. Each card identifies the machine, shows its location and describes any special characteristics. Maintenance work is tabulated currently by job description, date and hours required.

**STAMPING A VARIETY OF PRODUCTS** on a steady production schedule is the job of this 400 ton Danly Straight Side Press. Here, a wagon elevator bottom for corn picker assembly is being formed at a rate of more than 1200 per eight hour shift. Operators like this Danly press because it is smooth and quiet, taking even top capacity jobs easily.

# DANLY

Mechanical Presses . . . 50 to 3000 tons



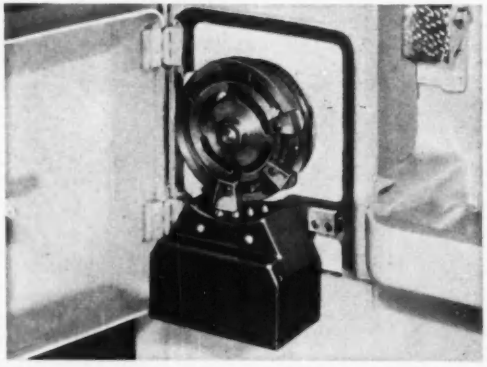
*SEND FOR YOUR COPY TODAY!*

**DANLY MACHINE SPECIALTIES, INC.**
2100 SOUTH LARAMIE AVENUE
CHICAGO 50, ILLINOIS

# 7 FEATURES that will increase your Turning Production on *both* Short and Long Runs

The productive advantages of multiple tooling and automatic cycling are available on short runs as well as on mass production turning with Sundstrand Automatic Lathes.

The following seven important design features of these Automatic Lathes make it possible for you to obtain these same benefits:



Quick set-up for short runs is accomplished by simply adjusting dogs on a graduated disk. No cycle control cams are required.

**1 Quick Cycle Changeover**
So the adjustments for various sizes and types of parts can be made rapidly with a minimum of down-time.

**2 Simplicity of Tool Adjustment**
So that operators or set-up men can readily learn to make tool set-ups and changeover.

**3 Wide Range of Carriage Cycles**
Easily adjusted for many different sizes of parts and types of tool uses.

**4 Wide Feed and Speed Range**
Suitable to cover a wide range in materials and sizes of parts to be machined.

**5 Adequate Horsepower**
So that multiple tooling can be used to shorten cutting time; also so that carbides and other modern cutting tools can be used to capacity.

**6 High Rapid Traverse Rate**
So that cutting tools can be advanced to the cut and returned after the cut in the least possible time.

**7 Automatic Cycling**
For accurate duplication to close limits of all parts in the lot. Also so that operator can, on occasion, run more than one machine.

SUNDSTRAND

RIGIDMILS • FLUID-SCREW RIGIDMILS • AUTOMATIC LATHES • HYDRAULIC EQUIPMENT

## You'll Get These 7 Features on Work in any Lot Size...

Yes, all of the seven foregoing features are included in each Sundstrand Automatic Lathe. Probably of greatest importance of these features is the quick cycle changeover. It makes it highly practical to include short runs on multiple tool jobs. On an average job using five tools, a Sundstrand can be set up in less than thirty minutes.

## ... In All Sundstrand Automatic Lathes up to 17½" Swing

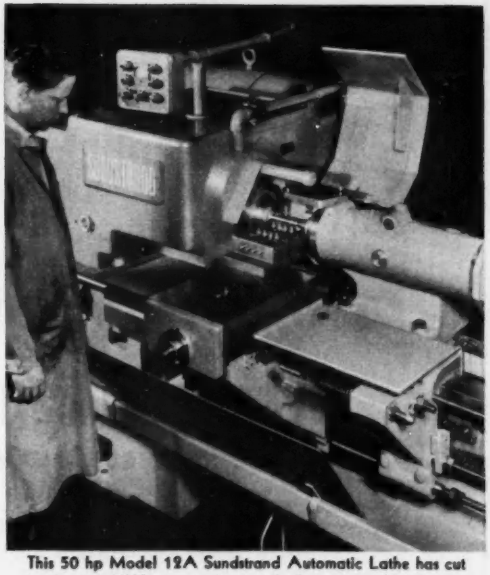
The line of standard Sundstrand Lathes consists of the Models 4A, 8A, 12A and 16. In addition, center drive lathes and special lathes can be furnished to suit special job requirements.

## ... Within Range of 3 to 75 HP

You'll find plenty of horsepower for your tougher jobs or a horsepower range to suit your work in Sundstrand Automatic Lathes. The complete line of machines embraces a horsepower range of from 3 to 75 hp.

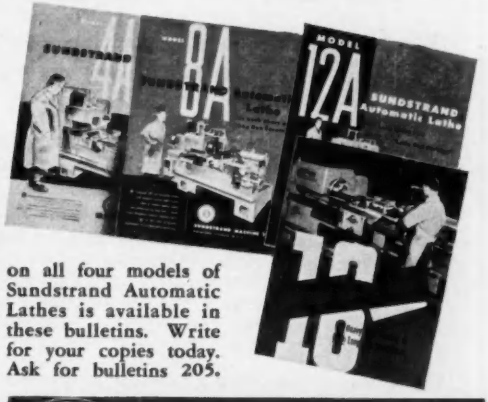


This Model 16 Sundstrand Automatic Lathe saved 66 hours in the rough and finish turning of a lot of 20 cylinder liners. Parts are 32" long by 15-1/4" diameter.



This 50 hp Model 12A Sundstrand Automatic Lathe has cut turning time 70% over previous method on universal joint parts. Job illustrated is just one of 12 similar parts run over this machine.

## FREE ADDITIONAL DATA:




on all four models of Sundstrand Automatic Lathes is available in these bulletins. Write for your copies today. Ask for bulletins 205.

SUNDSTRAND

**SUNDSTRAND**
**Machine Tool Company**
**2571 Eleventh St. Rockford, Ill., U.S.A.**

**DRILLING AND CENTERING MACHINES • SPECIAL MILLING AND TURNING MACHINES**

*The Ultimate in*

# Differential Perfection . . .

CONTROLLED POWER — DUALOC DRIVE — TRADE MARK

# *Dualoc* POWER-DIVIDING DIFFERENTALS!

## ONLY Dualoc *P. D. Differentials

### OFFER THESE OUTSTANDING FEATURES:

- **Automatic transfer of power to wheel with best traction.**
- **Power Division Up to 14 to 1.**
- **Instantaneous control of torque that helps prevent skidding.**
- **Cushioned load that prevents damaging or breaking axles.**



Shown above is car equipped with Dualoc *P-D Differential negotiating deep snow bank that would have resulted in an instant stall with conventional type of differential. As may be noted snow is approximately 12 inches deep.

Dualoc *P-D Differentials are capable of distributing torque between the wheels, giving the wheel with the greatest traction the greater amount of power. Under adverse driving conditions Dualoc *P-D Differentials control the flow of torque to such a marked degree that slippage—due to uneven road surfaces, sand, gravel, icy spots, or when one wheel slips in mud or deep snow—is minimized to the point where stalls are practically eliminated.

The action of Dualoc *P-D Differential is fully automatic in operation. It is locked on a straight drive so there are no moving parts, thus minimizing wear and assuring long life.



Mud hole fails to stop car equipped with Dualoc *P-D. Differential. As may be seen, car is pulling out of soft, slushy mud, approximately 10 inches deep. Same positive action is possible in reverse gear.

(* P-D Power-Dividing)

**For Detailed Information Wire or Write**

## DUALOC DRIVE, Inc.

700 TWENTIETH STREET — ROCKFORD, ILLINOIS

Makers of Power-Dividing Differentials for Cars, Trucks and Tractors

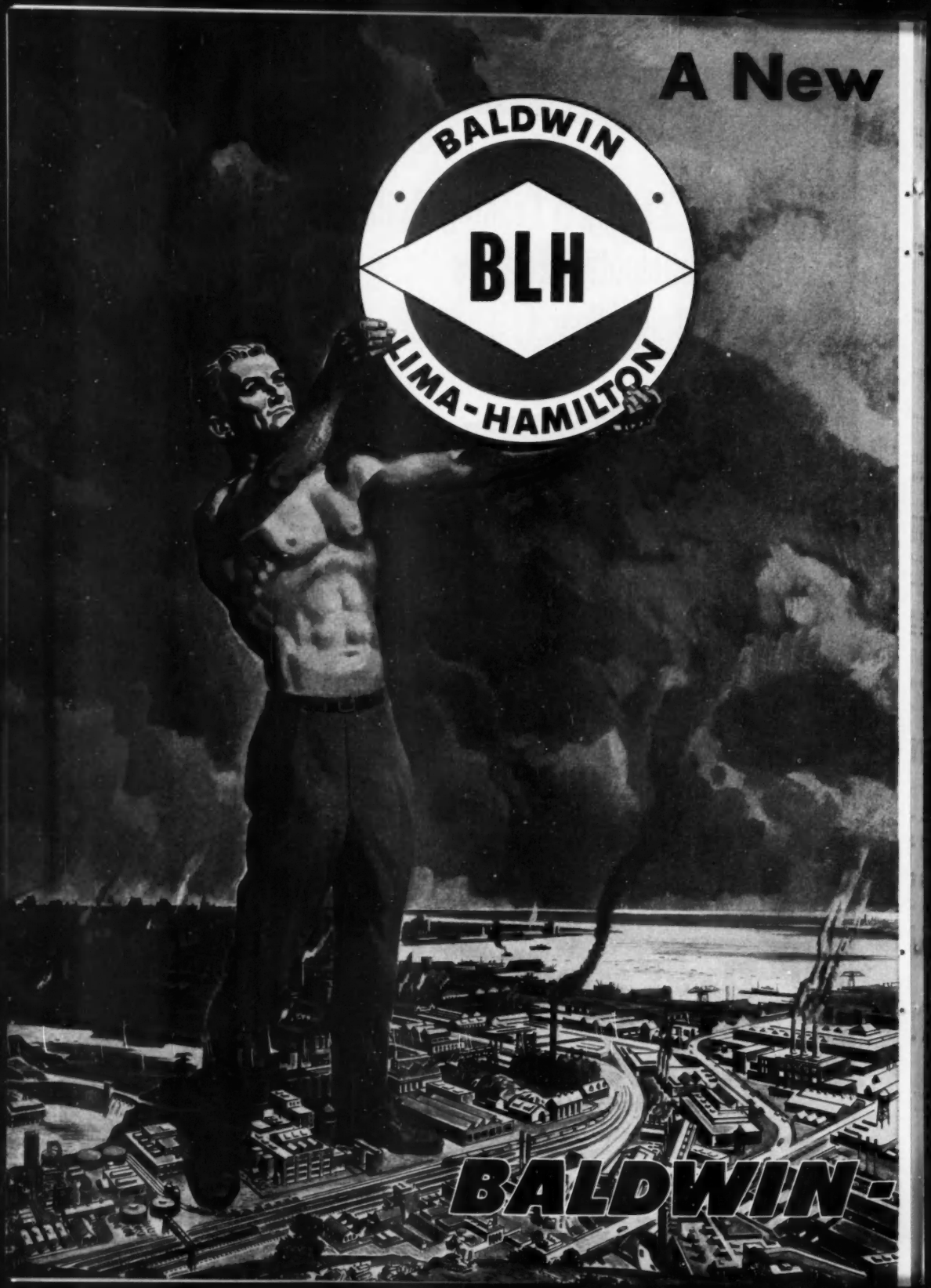
# 21 of 25 Leading Builders of Automotive Engines Using Chrome Rings Specify PERFECT CIRCLES



The application of solid chrome plating to piston rings, perfected by Perfect Circle, more than doubles the life of pistons, rings and cylinders. Performance data will be furnished upon request.

**Perfect Circle**

***The Most Honored Name in Piston Rings***


A New
BALDWIN
BLH
LIMA-HAMILTON
BALDWIN-

# Symbol of Service to Industry

Representing the combined facilities of two of America's leading suppliers of industrial machinery and equipment, this new Baldwin-Lima-Hamilton symbol is backed by many decades of experience, a progressive and continuing research program, and the most modern engineering and manufacturing techniques. It represents the activities of eight plants spotted from coast to coast and numerous established sales outlets, strategically located for prompt, competent service.

The dispersion of B-L-H manufacturing facilities permits "local" handling and delivery on many items to the important producing areas. It also conforms to the projected pattern for better national defense.

You have undoubtedly used many of the products offered by Baldwin, by Lima-Hamilton and by various subsidiaries, but you may not know, today, how well the Baldwin-Lima-Hamilton Corporation is equipped to supply your needs.

This array of products will suggest added opportunities for you to benefit from the expanded production-distribution-service facilities Baldwin-Lima-Hamilton now offers.



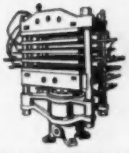
**INDUSTRIAL LOCOMOTIVES**—Gasoline, Diesel and Diesel-electric powered.



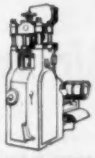
**HYDRAULIC PRESSES**—All types and capacities. Complete standard line.



**PREFORMING PRESSES**—For plastic materials. 75 and 200 ton models.



**PLATEN PRESSES**—In many types and sizes for accumulator or self-contained operation.



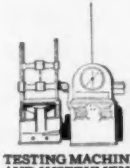
**PLASTICS PRESSES**—Compression molding, plunger molding, and other types.



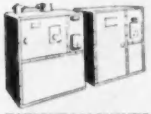
**POWER TOOLS**—Bending rolls for plate fabricators and ship yards.



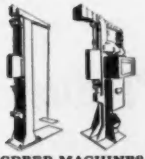
**PLATE PLANERS**—With design features to maintain accuracy, increase capacity.



**TESTING MACHINES AND INSTRUMENTS**—Universal, Fatigue, Stress Analysis.



**FATIGUE MACHINES**—A complete range of sizes, for simulated service testing.



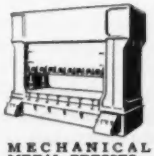
**CREEP MACHINES**—For determination of metal properties under high temperature.



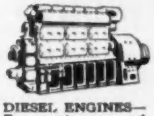
**STRAIN GAGES AND INSTRUMENTS**—For an accurate picture of stress distribution.



**CRANES**—Full range of capacities up to 110 tons, crawler and rubber mounted.



**MECHANICAL METAL PRESSES**—Single, double and, triple action.



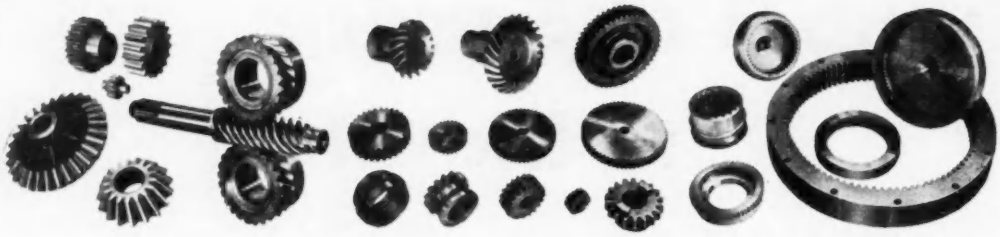
**DIESEL ENGINES**—For stationary and marine applications.



**BORING MILLS**—100" to 43' swing, with mechanical, electronic or hydraulic controls.

**Baldwin-Lima-Hamilton Corporation**, Philadelphia 42, Pennsylvania. **Plants:** Eddystone and Burnham, Pa.; Lima, Hamilton and Middletown, Ohio; Rochelle, Illinois; Greenwich, Connecticut; San Francisco, California. **Offices:** Chicago, Cleveland, Houston, New York, Philadelphia, Pittsburgh, San Francisco, St. Louis, Washington

# LIMA-HAMILTON



# Call AMGEARS* for gear production or gear design

Fast action when you need gears is one reason why Amgears' list of repeat customers grows and grows.

We can meet your schedules because our large, modern plant is fully equipped with the most modern gear cutting machines of all types, with many specialized machines for volume production.

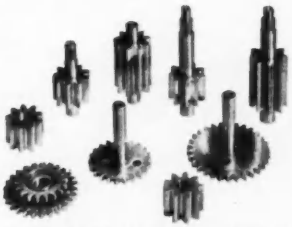
You'll get the same prompt service on your gear design problems, too. Our experienced engineers are frequently able to suggest ways to improve products or shave costs. Write for a copy of our "Case Histories."

Amgears can furnish straight spur gears, helical gears and straight bevel gears up to 60" maximum P.D., spiral bevel gears up to 18" maximum P.D.; worms and wormgears to 30" center distance; ground tooth spur gears to 10" maximum diameter and 10" face; and spur and helical generated racks 32 pitch to 4 pitch.



## "Air-Spec" Gears

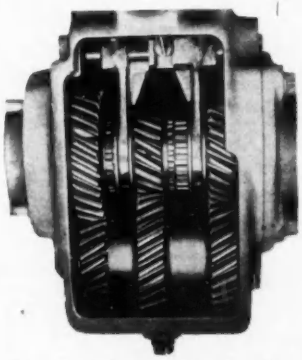
Amgears is fully experienced in the manufacture of "Air-Spec" gears. Expert design and manufacturing engineers, metalurgists and fine gear-making craftsmen are integrated into a well-coordinated team. These men know how to combine the most exacting techniques of inspection and metalurgical control with the most advanced shop practice in gear making. "Air-Spec" gears meet or exceed every aircraft standard for core and surface hardness, dimensional accuracy, and quality of finish. You can delegate full responsibility for your "Air-Spec" gear requirements to Amgears, with complete confidence.



Typical AIR-SPEC gears being produced by Amgears for aircraft engine and accessory manufacturers.

## "Industrial-Spec" Gears

Amgears also offers unparalleled manufacturing and design facilities for cut and ground production and precision spurs, sprockets, helicals, worms and wormgears; straight and spiral bevel gears and straight spur and helical racks. Expert manufacturing engineering service is available for planning production on an efficient and economical basis, to help meet today's delivery needs.



Automotive, tractor and construction machinery open and closed gear assemblies.

## Gear Assemblies

Enclosed and open gear assemblies are another Amgears specialty. Many of our customers find Amgears' facilities more economical than operating their own gear design and gear cutting departments.

Copyright 1951, Amgears, Inc.

AMGEARS, INC.
6633 WEST 65th STREET
CHICAGO 38, ILLINOIS

A SUBSIDIARY OF HUPP CORPORATION
CONTRACT MANUFACTURERS
Detroit • Cleveland • Chicago

**AMGEARS, INC.**

DEPT. A, 6633 WEST 65th STREET, CHICAGO 38, ILL.

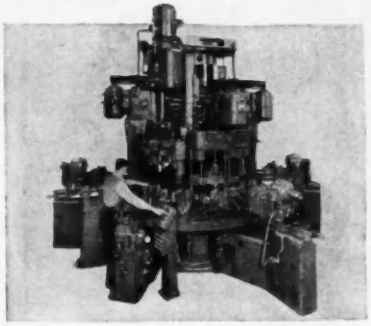
POrtsmouth 7-2100

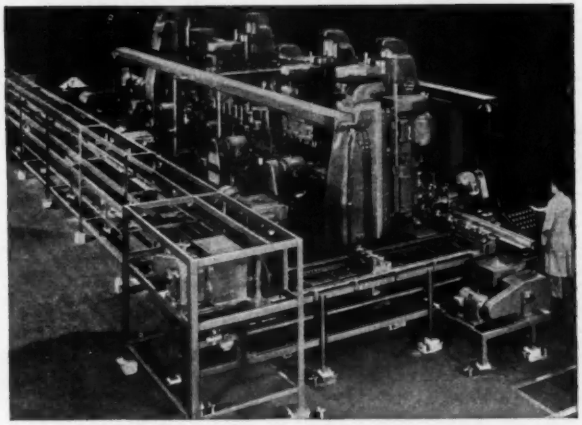
*AM—Accurately Made

# 4 Ways TO COMBINE OPERATIONS AND REDUCE WORK HANDLING

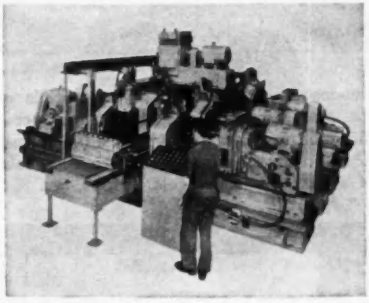
## with W. F. & John Barnes Special Machines

**A Special Center-Column Machine** which has proved extremely adaptable to production of a wide range of parts. Standardized horizontal units are attached. Machine performs a total of 51 operations.

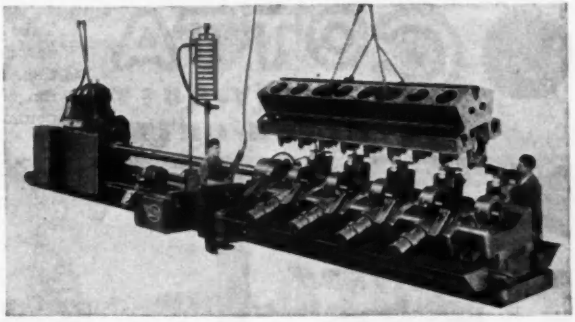




**Special Progress-Thru and Return Transfer-Type Machine** handles 2 workpieces simultaneously, air cleans and returns parts and work holding fixtures to operator at loading station. A total of 116 operations are performed automatically.



**A Special 13-Station Progress-Thru Machine** for straight line production work. Performs 61 drilling, chamfering, reaming and tapping operations on cylinder blocks. The only work handling required is the moving of the blocks on a roller conveyor in and out of the machine.



**Special Single-End Boring Machine** rough-and-finish-bores 9 large Diesel Engine main bearings simultaneously and straddle-faces front bearing, with only one setting of workpiece. Spindle stop and hydraulic part shifter permits advancing and retracting bar without removing bearing caps or tools.

W. F. & JOHN BARNES

● The W. F. & John Barnes machines shown here illustrate four different methods of combining operations to substantially reduce work handling and manual effort. Together, they show how Barnes specialized machine engineering techniques have been successfully applied to meet a range of current production needs. If you would like to know more about our complete services which have been developed over a period of 75 years, *write for free booklet* "Coordinated Creative Engineering."

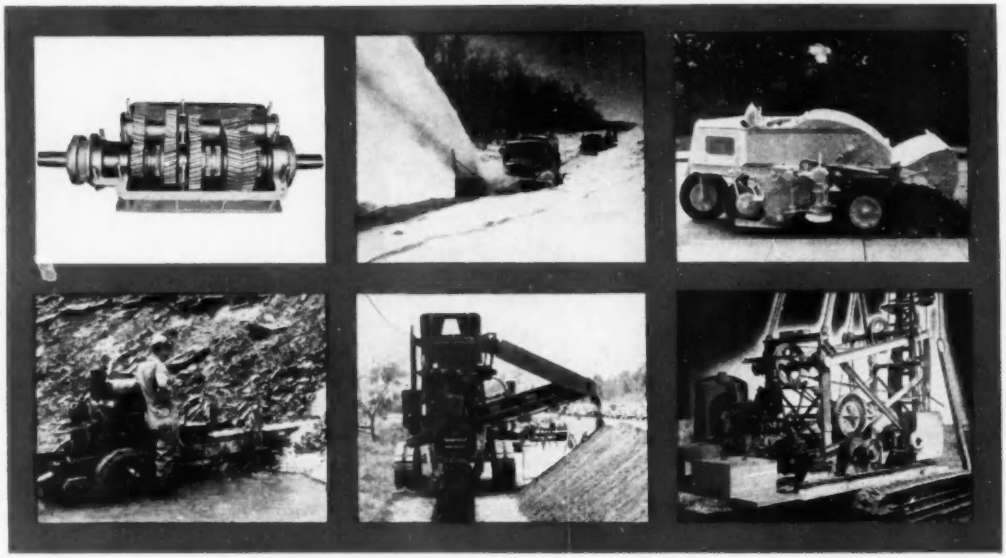
**W. F. & JOHN BARNES COMPANY, 312 SO. WATER ST. ROCKFORD, ILL.**

MULTIPLE SPINDLE DRILLING, BORING, TAPPING MACHINES • AUTOMATIC PROGRESS-THRU AND TRANSFER TYPE-MACHINES

An Assurance of Dependable Service

# COTTA
## HEAVY-DUTY TRANSMISSIONS

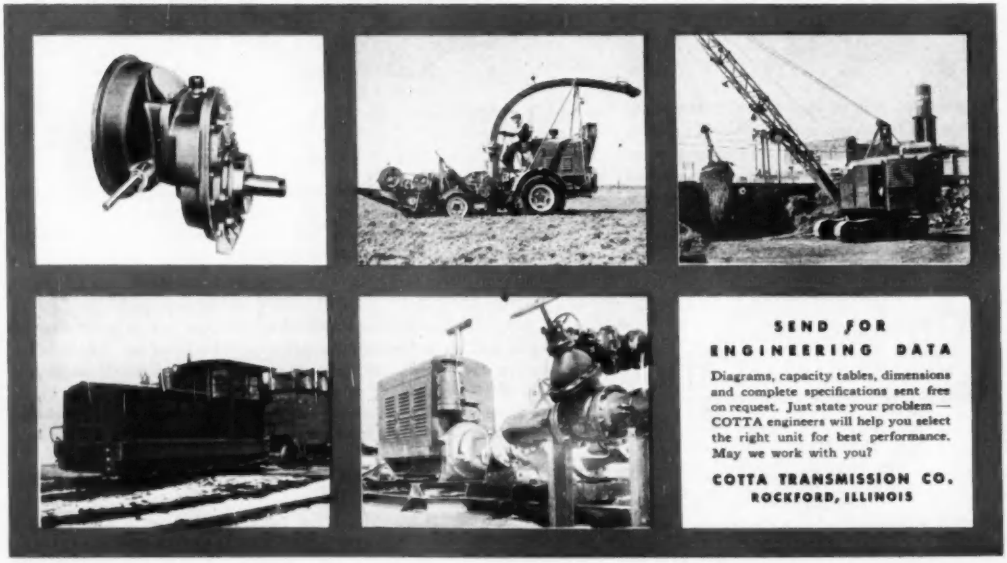
For jobs that ordinary gear-boxes can't handle — heavy-duty loads, continuous day-and-night operation, requiring multi-speeds forward and reverse — come to COTTA for "Engineered-To-Order" Transmissions, custom-designed to fit available space.



An Assurance of Dependable Service

# COTTA
## HEAVY-DUTY REDUCTION UNITS

Take this low-cost way to adapt higher speeds of new engines to lower rpm required for machine operation. Cotta Reduction Units are available in a broad range of ratios . . . input torque of 150 to 2000 foot pounds — for use on cranes, shovels, pumps, etc.



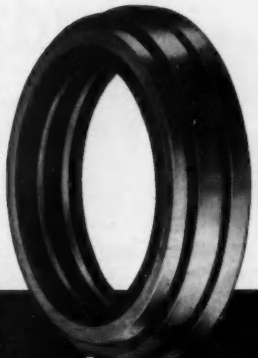
**SEND FOR ENGINEERING DATA**

Diagrams, capacity tables, dimensions and complete specifications sent free on request. Just state your problem — COTTA engineers will help you select the right unit for best performance. May we work with you?

**COTTA TRANSMISSION CO.**
**ROCKFORD, ILLINOIS**

The Standard For Industry
For More Than 40 Years
**Gits Oil Cups** Have
*Proved* Dependable and Superior
in Thousands of Installations





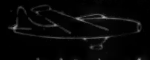
*Now!* Used Throughout Industry!

# GITS *Unit* SEAL

Has *Proved* Dependable and Superior in Actual Use



. . . in standard aircraft



. . . in jet aircraft

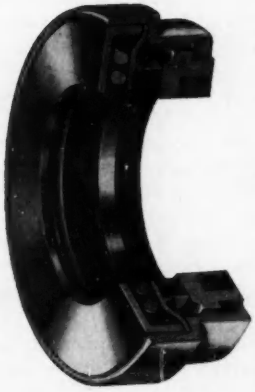


. . . in tanks



. . . in motor trucks

. . . in scores of other important applications



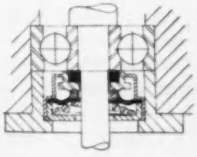
**It is "engineering wise" to specify the Gits Unit Seal on your blueprints. Here's why:**

- Simply installed—eliminates possibility of damage to the seal faces during installation—a production line advantage to the user
- Designed to use minimum diametrical and axial space consistent with good engineering principles
- Adaptable to pressure applications when correctly engineered into the product

**Here are two typical GITS UNIT SEAL installations:**



1. Synthetic rubber gasket holds Gits Unit Seal in position. Shaft shoulder forms backing for Rotating Seal Face.



2. Gits Unit Seal pressed into adapter plate. Rotating Seal Ring butts against bearing race for backing.

**To start on your *own* road to better sealing . . .**

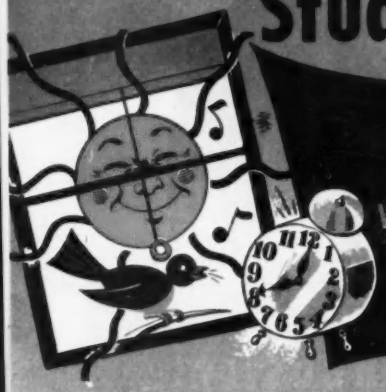
***Write Now for* FREE *Illustrated Brochure***

**or send your seal problems to Gits Bros. engineers for their recommendations**

## GITS BROS. MFG. CO.

1870 S. KILBOURN AVE. • CHICAGO 23, ILLINOIS

# Studying Over Springs?



**CALL US EARLY ENOUGH**

**WHEN JOB IS IN DEVELOPMENT STAGE**

**THEN WE CAN REALLY HELP!**



IN many publications you will find detailed data on practically every metallic material, process and part widely used in manufacturing—except springs.

On springs you find little or no data. Because ordinarily springs are not a standard product.

Requirements of the job determine the exact spring material to be used, nature of bends and shapes, tolerance, finish, etc. Each high grade mechanical spring is or should be a separate engineering job.



There is perhaps no mechanical part that costs so little yet plays so vital a part in the operating efficiency of a product. Nor any vital part about which so little is known by the majority of the people who must buy it.

The professional engineer may know the basic principles of spring design but needs the specialized experience and facilities of the practical spring maker to put those theories into use.

While the average spring is made from one of half a dozen commonly used spring materials, there is no limit to the variations that can be worked out to meet unusual requirements. When changing, however, from carbon steel to alloys, slight changes in the dimensions of the spring must be made.

Heat treating, finishing, end grinding, inspection controls and other variables also materially affect both the performance and cost of your springs.

Consequently, selection of your source for mechanical springs is a matter of importance. On their spring engineering skill and production "know how" may depend the performance of your product and the good name of your company.

Here at Illinois Coil Spring Co. we are proud of the number of important manufacturers who have come to depend on us for their springs. Some after varied experiences with other sources.

This preferment has been earned, we believe, by our policy of first getting all the facts from customer or prospect—then developing *the* spring that can be produced most economically that will do the job dependably—then producing the springs strictly to specifications.

For certain types of spring items usually purchased in volume we often can develop special production equipment that enables us to show the buyer important savings.

In this and other phases of the spring business we find we can serve our customers best when we can maintain direct contact with them to exchange information.

So we are inviting inquiries principally from manufacturers in the Middle West. For them we are in a position to do an *especially* good job.

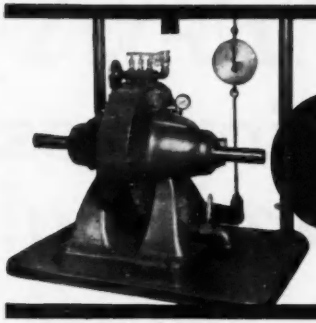
***May We Work With You?***

## ILLINOIS COIL SPRING COMPANY

2100 NORTH MAJOR AVENUE — CHICAGO 39, ILLINOIS

TELEPHONE BErkshire 7-6464

# Precision Tools to do 3 Fine Jobs



1

## TAYLOR HI-EFF DYNAMOMETERS

Accurate checks on B.H.P.—Torque—Friction, Fuel and Life Curves are available on Taylor Hi-Eff Hydraulic Dynamometers. There are 72 different capacity models, each with a wide range of HP and speed. Capacities from fractional to 10,000 HP —Speeds from 0 to 25,000 RPM. Reversible if desired. Taylor Hydraulic Dynamometers offer you the most economical maintenance and investment costs per hour use. Taylor engineers will be glad to make recommendations for your needs.



2

## TAYLOR HI-EFF BALANCER

Sure way to cut vibration, get longer life and greater safety from your product, is to balance rotating parts. The Taylor Hi-Eff Balancing Machines give you high speed production, 300 auto fans per hour, 200 auto tires per hour, 80 grinding wheels per hour, 60 clutch assemblies per hour — are typical results reported by users. Nine different capacity models are now available — other models available to meet special requirements. Taylor engineers will be glad to make recommendations for your specific problem.



3

## TAYLOR HI-EFF PRECISION DRILLING MACHINES

For truly fine precision drilling of holes from .002" to $\frac{5}{8}$" — nothing could be better than a Taylor Hi-Eff Precision Drill. Speed ranges from 800 to 40,000 RPM. Two series available in 10 drill diameter ranges. Depending on size, run-out of spindles is held from .0001" on small hole diameter machine to .0005" on largest hole capacity machine. These are ideal machines for fine accurate hole drilling such as required for diesel fuel injection nozzles and precision instrument manufacture.

## FREE



Separate bulletins giving valuable detailed information on the range and uses of these tools are available on request. Write on your business letterhead specifying the bulletins desired.

Bulletin No.
760—Dynamometers
761—Static Balancers
752—Precision Drills

TAYLOR
HI-EFF
Dynamometers • Static Balancers
Precision Drills

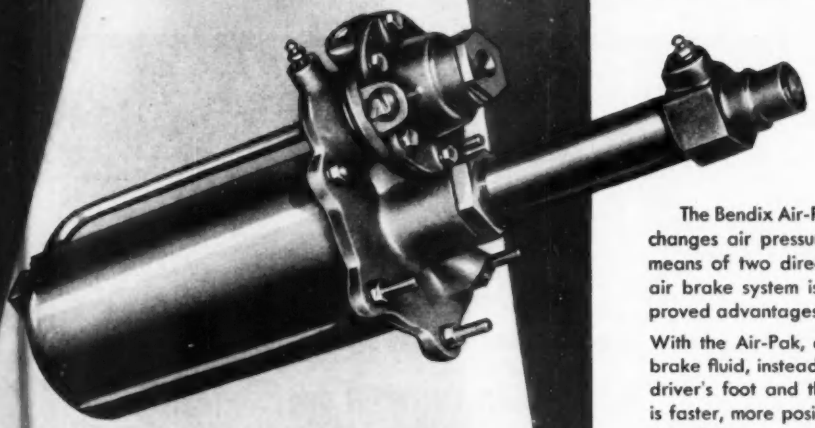
TRADE MARK

**TAYLOR DYNAMOMETER & MACHINE CO.**

528 W. Highland Ave. Dept. I-3 Milwaukee 3, Wis.

# Bendix AIR-PAK

## An Air Brake Unit that Revolutionizes Heavy Vehicle Braking!



The Bendix Air-Pak is an air-hydraulic unit that changes air pressure into hydraulic pressure by means of two direct connected pistons. Thus an air brake system is combined with all the well-proved advantages of hydraulic brake actuation.

With the Air-Pak, a non-compressible column of brake fluid, instead of air, connects between the driver's foot and the brake shoes. Brake action is faster, more positive and under better control. Also, brakes can be applied instantly by foot-power alone—a valuable emergency stand-by if brakes are needed before air pressure builds up, or if air pressure fails for any reason.

The Air-Pak is similar in design and principle to the well known Bendix* Hydrovac*, vacuum-hydraulic braking unit, in use today on more commercial vehicles than any other power braking system. Bendix has built more than 2½ million Hydrovacs; thus the Air-Pak has a matchless background of related engineering and manufacturing experience.

*A descriptive folder on Air-Pak will be sent on request.*

*REG. U. S. PAT. OFF.

**BENDIX**
PRODUCTS DIVISION
**SOUTH BEND**

Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, N. Y.
Canadian Sales: Bendix-Eclipse of Canada, Ltd., Windsor, Ontario, Canada

Bendix Aviation Corporation

**Bendix Products Division**

**BRAKING HEADQUARTERS FOR THE AUTOMOTIVE INDUSTRY**

AUTOMOTIVE INDUSTRIES

March 15, 1951 Volume 104, No. 6

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CONSOLIDATED VULTEE AIRCRAFT PHOTO

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News of the AUTOMOTIVE INDUSTRIES

Vol. 104, No. 6 March 15, 1951

### GM Acquires Site for Military Tests

GM has acquired an additional 1000 acres of land adjoining its present proving ground and will use the area for a test track for military vehicles. Construction of roads will start immediately and will be completed by July. The area contains a natural lake for deep fording and landing operations as well as for amphibious tests. About half the area is very rough terrain with the other half comparatively level. Two buildings will be constructed for tank repair and for storage of road maintenance equipment.

### Official 1950 Output Data Show 8,003,033 Vehicles

The Automobile Manufacturers Association has completed its final revision of 1950 car and truck production figures and reports a total of 8,003,033 vehicles produced last year. Passenger cars accounted for 6,665,863 units, compared with 5,119,466 for 1949. Trucks accounted for 1,332,263 units, against 1,134,136 the previous year.

### Chicago Automobile Show Biggest in Nation

The Chicago Automobile Show held Feb. 17—25 was an outstanding success. In scope, entertainment features, decoration, and general organization, the Chicago Show parallels the prewar expositions held by the industry in New York City. Every manufacturer of passenger cars and most trucks were represented by the Show. The Chicago Automobile Trade Association has taken the play away from other cities with its aggressive promotion of the Show, which was attended by an estimated 450,000 persons. Last year the show drew 478,000, a new record. In connection with the Show, all the major automotive companies held dealer meetings and entertained guests. Exhibits at the show were estimated to be worth more than $5 million.

### New Car Registrations Jumped in 1950

Final tabulation of new passenger car registrations by R. L. Polk & Co., for 1950 show that the total for the year was 6,326,438 new cars licensed, or 1,488,000 higher than in 1949, the best previous year. August was the highest month of the year with registrations hitting 688,995 passenger cars. Both July and September exceeded 600,000, with 609,926 registrations in July and 625,755 in September.

### Dealers Approve Ceilings On Used Car Prices

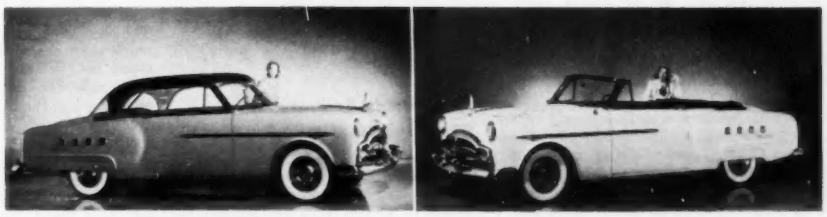
Both new and used car dealers appear to approve the action of the government in stabilizing new and used car prices. The order setting guide book quotations as ceilings on used cars eliminates the confusion that existed under the previous pricing order which set the maximum price at the highest level charged by the dealer for a similar car during the base period. The order is aimed particularly at eliminating sales of new cars on used car lots at prices higher than established new car prices. The order came at a time when used car prices generally were at or below the guide book prices so that dealers were not caught with high priced merchandise on which they would take a loss.

### Vehicle Makers to Get Tires Despite Pinch

Limitations on the permitted use of both natural and synthetic rubber is not expected to be a shortage factor governing production of automobiles and trucks. The reason is that original equipment requirements will be taken care of, and any temporary shortage of tires that may develop will come out of the replacement tire market. However, with natural rubber usage being reduced to 25,000 tons during March, some degrading of quality is to be expected in both original equipment and replacement tires, at least temporarily. The rubber order limits use of natural rubber in smaller size passenger cars to an average of 15 per cent, and larger sizes to 22 per cent. Previously, the upper limit was about 35 per cent. However, because of the high price of natural rubber, many passenger car tires in recent months have been carrying less than the maximum amount, with the average being about 25 per cent.

Permitted use of all types of rubber in March is about 90,000 tons, with manufacturers permitted to make up the cuts in natural rubber by using synthetic. The synthetic rubber program is being expanded and is expected to be in high production by April or May. In addition to expanded facilities, government plants have started to use a new process which is said to permit a substantial increase in production. It involves a new type rubber, made by adding rubber processing oils to

**DUO DEBUT**

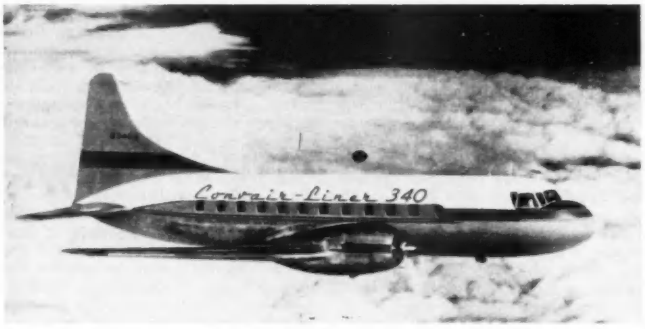


*These two new additions to the 1951 Packard line, the Mayfair (left), a new sports hard-top, and the Convertible (right), recently made their debuts. Mounted on a 122-in. wheelbase the two new cars are powered by a 150-hp engine increasing to 155 hp with Ultramatic at 7.8-to-1 compression ratio.*

cold rubber. Goodyear has also placed at the government's disposal an improved method of making synthetic rubber, which will increase production by 20 to 25 per cent. It utilizes materials and practices known to the rubber industry, and combines the best features of cold rubber and the German buna used during the last war.

### Chrysler Convertible to Pace Indianapolis Race

The annual 500-mile Indianapolis Race on May 30 will be paced by a Chrysler stock convertible, powered by the newly-designed V-8 FirePower engine developing 180 hp. It is expected to get the field away to a flying start at a speed of more than 90 mph, faster than the average speed made in winning nine of the early 500-mile events. It will be driven by D. A. Wallace, president, Chrysler Div., Chrysler Corp., with Wilbur Shaw as the only passenger.




**LATEST IN LINERS**

*United Air Lines has contracted with the Consolidated Vultee Aircraft Corp. for the purchase of 30 models of this new 44 passenger Convair-Liner 340 which will look similar to this artist's conception. The 340 will be 79 ft 2 in. in length, with a wing span of 105 ft 8 in.; a wing area of 920 sq ft; and its gross weight will be 45,000 lb. Although the 340 will be powered initially by two 2400-hp Pratt and Whitney engines, it is being specifically designed to use powerful turboprop engines later.*

### Pay Raises Cancel Gain of Car Price Increases

Automobile manufacturers gained very little ground as a result of the 3½ per cent increase allowed in prices by OPS, because simultaneously the government also approved pay increases under cost-of-living escalator clauses in labor contracts. As a result, hourly rates in the automotive industries went up five cents an hour just about cancelling out the 3½ per cent increase in car prices. The price order is effective for 60 days and it is expected that another upward adjustment will be permitted in May either under the so-called "Hancock Formula" which takes into account cost increases since the start of the Korean war or through a general price order covering all manufactured items and based on profit margins.

All companies in the automotive industries now operate under cost of living escalator clauses. The next review of the cost of living allowance will be in June, at which time annual improvement factor raises will also be due at some companies. Whether or not these will be allowed or whether another cost of living wage adjustment will be permitted is still unknown. The 3½ per cent increase applies only to the manufacturer's price with the dealer permitted to pass on only his dollar and cents increase. In effect, this amounts to a cut in the traditional dealer discount and NADA is vigorously protesting. However, the action is likely to stand. All companies took the immediate advantage of the permitted increase.

### Convair Activates New Guided Missile Div.

The Consolidated Vultee Aircraft Corp. has activated an integrated production plant for supersonic guided missiles at a new division under contract to the U. S. Navy's Bureau of Ordnance. The Missile Div. will begin operations immediately. Convair has its main plant in San Diego, and operates another division at Fort Worth, Tex. Gage Irving was appointed manager of the new missile facility, to be known at Convair Div. 3. The missile unit will initially occupy approximately 200,000 sq ft of floor space, and it will be completely self-contained, with its own machine and other shops, industrial relations section, engineering department and assembly facilities.

### GM 1950 Net Set All-Time U. S. Record

Although GM's 1950 tax provision was over $1.9 billion, the company recorded a net profit of $834,044,039 on net sales of $7,531,086,846 for 1950, exceeding substantially the 1949 net profit of $656,434,232 on sales of $5,700,835,141, the previous record. In 1950, GM's U. S. and Canadian factory sales of cars and trucks totaled 3.8 million units. The following table dramatizes how individuals and the economy as a whole benefited from GM operations:

| GM Received | In millions | Per dollar |
|---|---|---|
| From sales of products and other income (net) | $7563 | $1.00 |
| **Where it went** | | |
| To suppliers for materials, services, etc. | 3542 | 46¾¢ |
| To employes (about 465,000) for payrolls, etc. | 1946 | 25¾¢ |
| To Federal, state and local governments for taxes | 1119 | 15¢ |
| To provide for depreciation and obsolescence of plants and equipment | 122 | 1½¢ |
| To GM owners (about 445,000 stockholders) | 539 | 7¢ |
| Retained for use in the business | 295 | 4¢ |

### Government Cuts Use of Tetraethyl Lead

Although the government has apparently abandoned, for the time being, plans for an arbitrary cut in octane ratings of gasoline, it may accomplish the same thing through indirection. Petroleum Administration for Defense has placed limitations on tetraethyl lead use by large gasoline refineries. The order provides that consumers of more than one million pounds of tetraethyl lead a year are limited to one million ponds annually, plus 80 per cent of what they used in excess of that amount in 1950. The effect of the order on fuel quality is not yet clear, since some refineries may be able to adjust their operations to minimize a drop in octane ratings that might occur in a flat arbitrary limitation. The order

was issued to make more tetraethyl lead available for aviation gasoline.

### OPS Checks Automotive Suppliers' Prices

The Office of Price Stabilization is reported to be investigating prices charged by suppliers of original equipment to automobile and truck manufacturers. Prices of automotive components are frozen under the general price order which limits prices to the highest level charged between Dec. 19 and Jan. 25. Immediately after the freeze on automobile prices, manufacturers appealed to suppliers to hold the line, but apparently OPS wants to say whether or not prices increased to manufacturers during December and January at a fast enough rate to warrant action.

### K-F Stops Making Cars at Long Beach, Calif.

Kaiser-Frazer Corp. has discontinued production of automobiles at its Long Beach, Calif., plant. The facilities, formerly owned by Douglas Aircraft Corp., will be reconverted to aircraft production, according to Kaiser-Frazer officials.

### Tests Show Short Runs Accelerate Car Wear

Automotive engineers have long known that intermittent and short run use of automobiles causes excessive wear. Their opinion is backed up by findings of Walter E. Jominy, chief metallurgists for Chrysler Corp. and president of the American Society for Metals. In a paper delivered at Detroit he said that a car driven only 15,000 miles in four years and operated for only short intervals showed wear many times greater than if the vehicle had been in constant use daily at much greater mileage. He said that in winter particularly, engine wear is aggravated by infrequent use through corrosion of operating parts caused by condensation when the cylinders are heated up for only short intervals.

### Bendix Aviation Expands Production Facilities

Since the start of the Korean War, the Bendix Aviation Corp. has increased employment 40 per cent and greatly expanded its production facilities. In its annual report, the company stated that employment has increased to about 30,000 from 22,000. Two new defense plants have been acquired, and major additions to manufacturing space have been made at many other plants. Net income for the fiscal year ended last Sept. 30, was $16.9 million, a substantial increase from the $11 million profit earned the previous year.

### Ford and Union Write New Seniority Pact

The Ford Motor Co. and the UAW-CIO have agreed on an area-wide seniority agreement covering the five Detroit area Ford plants with approximately 80,000 hourly-rated employes. The agreement was worked out in view of expected temporary layoffs that may come as a result of motor vehicle production curtailments before defense work is ready to start. The plan provides that employes laid off from any of the five plants will be rehired into any other plant where work is available before any new workers are hired. Such workers will retain and accumulate seniority in their home plant and will accumulate service credits toward pensions, vacation pay, holiday pay, and other economic benefits provided in the union contract.

### K-F Buys Detroit Engine Plant

The Kaiser-Fraser Corp. has bought, from Continental Motors, the large one-story plant in Detroit, operated under lease by the K-F Detroit engine division since March, 1947. Conversion of part of the plant for production of Wright R-1300 aircraft engines for the Air Force is already underway. Automobile engine production will continue, however. Under the same arrangement that has prevailed in the past, Continental will continue to supply part of K-F engine requirements from its Muskegon operation.

### GM Payroll, Employment At Peak Last Year

GM employment last year equaled the record high level set during World War II, with payrolls the highest in history. The company paid out a record $1.8 billion last year to its average of 465,239 employes. The employment was a peacetime record and compared with an average of 401,326 salaried and hourly rated workers in 1949. The increase in payroll from $1.44 billion to $1.8 billion was attributed to the larger number of employes who worked steadily and with substantial overtime. Average work week for hourly-rated employes last year was 41.5 hours, compared with 39.5 the previous year. Earnings of hourly rate employes in 1950 was $75.58, compared with $68.41 the previous year.

(*Turn to page* 270, *please*)

**COLOR STUDY**

*Studying colors proposed for 1952 Ford passenger cars using 66 one-eighth scale models in a unique display at the styling showroom in Dearborn, Mich., is L. D. Crusoe vice-president, Ford Div., Ford Motor Co. Randall A. Osmon, color and finish stylist, is kneeling. Arranged in geometrical patterns, the models are painted with actual Ford baked enamel production finishes, but while the models show color combinations and contours, they do not represent any future Ford car body styles.*



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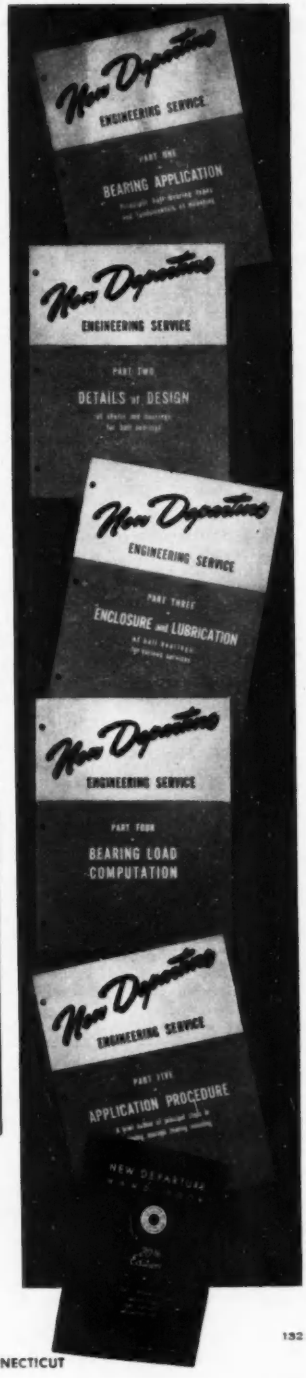
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### BALL BEARINGS

*Nothing Rolls Like a Ball*

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AUTOMOTIVE INDUSTRIES

# 33rd ANNUAL STATISTICAL ISSUE

# *JUST IMAGINE!*

- Of the total cars, trucks and buses manufactured throughout the world during 1950, the United States produced 76 per cent with a wholesale value of $10¼ billion, compared to $8.175 billion in 1949.

- For 1950, factory sales of replacement parts and accessories were about $2,128,000,000.

- Aircraft industry income last year is estimated at over $2¼ billion, including $120 million for civil planes and engines. Military data are restricted.

- Tractors produced during 1949 for farm and non-farm use had a wholesale value of $783 million, the latest figure available. It is estimated 1950 output was slightly less due to strikes.

- Over 92,000 civil aircraft are registered throughout this country and of them 94 per cent are the single-engined type. We have 6391 airports and landing fields.

- Approximately 70 per cent of the world's motor vehicles are operating in the United States.

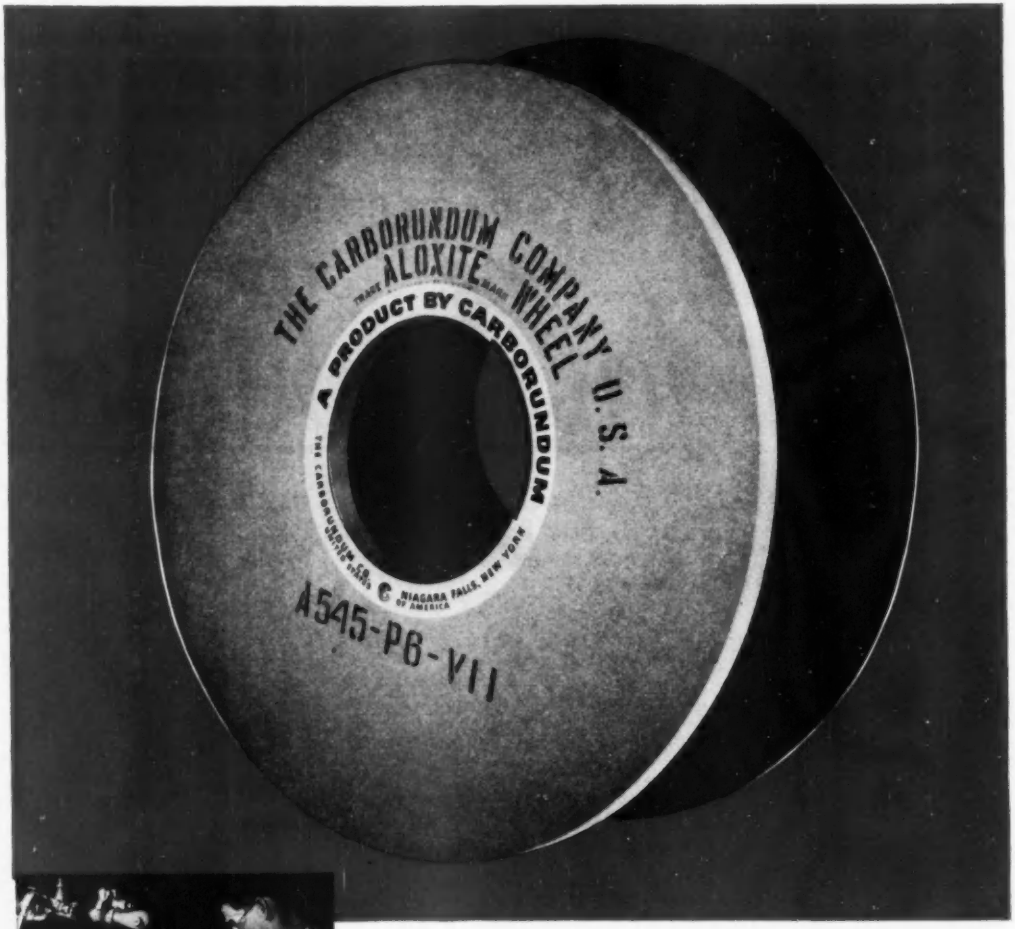
- During 1950 U. S. plants built 6,665,628 passenger cars, an all-time high, yet 55 per cent of the cars in use where five years old and over. For trucks of five or more years old the percentage was 46.

- "Hard-Tops" showed their popularity by rising from 0.2 per cent of passenger car production in 1949 to 9 per cent in '50.

- Four-door sedans are still the best sellers, accounting for 45 per cent of all passenger car factory sales last year.

- 74 per cent of 1950 truck factory sales was 14,000 lb gross vehicle weight and under; 20 per cent were from 14,001 to 19,500 lb GVW.

- General Motors had 45.4 per cent of domestic passenger car sales, the Ford Motor Co. 24 per cent and the Chrysler group 17.6 per cent.






# More Crankshafts per Wheel!

These V 11 bond grinding wheels by CARBORUNDUM are setting new higher standards in crankshaft grinding. They provide a high rate of stock removal with minimum heat generation and wheel wear. Exceptional form holding qualities are retained for extended periods; close work tolerances are readily maintained. There is a noticeable reduction in grinding pressures which results in better finish, size and form.

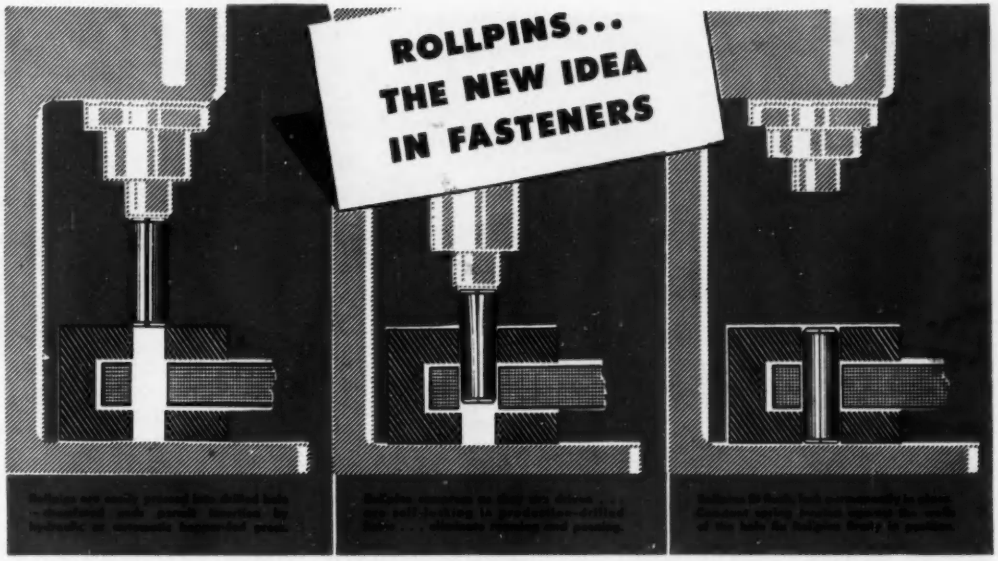
Today actual records in many plants substantiate the value of V 11 bond grinding wheels for increased production efficiency by giving more "cranks" per wheel.

## *Only* CARBORUNDUM

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**makes ALL Abrasive Products... to give you the proper ONE**

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# How to eliminate rivets and set screws with Rollpin self-locking fasteners

Now put real fastener economy into your assembly procedure. With Rollpin metal fasteners as replacements you can eliminate many rivet and set screw applications and avoid the peening or threading operations which they require. One stroke of a press sets a Rollpin firmly in place, flush with the face of your assembly. This means real savings to you in costs and time.

It will pay you to investigate Rollpins for your product as a cost saving replacement for steel fastening pins, pivot or hinge pins, clevis pins, cotter keys, locating dowels, or shafts.

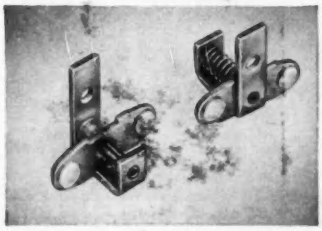
Rollpins exceed the shear strength of cold-rolled pins—are easily adapted to jig assembly or automatic hopper-fed presses. They provide a firm vibration-proof fit until deliberately removed with a pin punch . . . and since Rollpins do not enlarge the hole, *the same pin* can be re-inserted with a hammer!

For details on Rollpins, write to Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, New Jersey.

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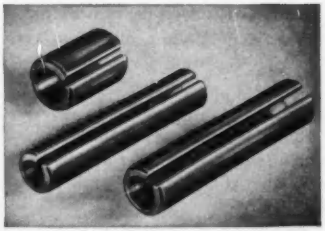
**ELASTIC STOP NUT CORPORATION OF AMERICA**



Rollpin acts as guide shaft for spring-loaded relay contacts. Inexpensively and simply pressed in place . . . riveting operation eliminated . . . it outwears previous brass rivet by ten times.



Rollpins replace set screws for pinning pulleys to shafts. Hole tapping operation is avoided and Rollpin holds tight against vibration until deliberately removed.



Rollpins are supplied to specified lengths with chamfered ends. They are available from stock in a wide range of lengths in diameters from 3/64" to ½" in Carbon and Stainless Steels.




# WHY RISK THIS TO SAVE A DIME A WEEK?

The scrap pile of many a plant—whether it makes gears, bricks or gummed tape—thrives on poor temperature control. And the margin is often narrow . . . a variation of only a few degrees meaning thousands of dollars in rejected material or damaged equipment.

Yet many plants risk this loss without realizing it! They attack the temperature control problem correctly, by using potentiometer pyrometers to get top accuracy and dependability. But they sometimes slip on the "standardizing" adjustments which such instruments need to maintain those qualities. Overlooking the need for frequent and regular standardizing, these plants permit the operation to be done by hand . . . and thus possibly skimped or forgotten.

There is just one way of removing this threat to the accuracy of process temperature. It's by putting the standardizing responsibility where it belongs . . . directly on the recorders and controllers themselves.

A relatively simple device, the automatic standardizer, should be built into the potentiometer to handle this job. It checks the measuring circuit at least every 48 minutes . . . adjusts when necessary . . . *never forgets!* And this essential feature, amortized in the usual 10 years, costs less than 10¢ a week.

So, regardless of what make instruments you buy, be sure to specify automatic standardizing. It's cheap . . . safe . . . sure!

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**AUTOMATIC STANDARDIZING Guards Product Quality When You Use Instruments Like These**



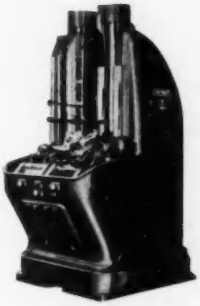
**Speedomax Potentiometer Instruments and Drive Unit (left) helping maintain production in an Ohio metal-working plant.**

Jrl Ad ND4(3)

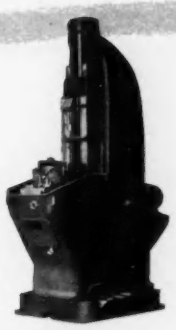
MEASURING INSTRUMENTS · TELEMETERS · AUTOMATIC CONTROLS · HEAT-TREATING FURNACES

LEEDS & NORTHRUP CO.

# investigate *Surface Broaching* for difficult machine work



Duplex Surface Broaching Machine. Made in 5, 10, 15 and 25 Ton Sizes.



Single Slide Surface Broaching Machine. Made in 5, 10, 15 and 25 Ton Sizes.



Continuous Type Broaching Machine. Made in 4 Sizes.

★ Throughout the metal working field there are many parts that can be surface broached at remarkable savings over the cost of the present machining method. The aircraft, automotive, small tool, appliance and even sporting goods manufacturers have all found ways of making parts faster, cheaper and to finer tolerances through the use of Footburt Surface Broaching Machines. We will be glad to work with you on the application of surface broaching.

**THE FOOTE-BURT COMPANY • Cleveland 8, Ohio**

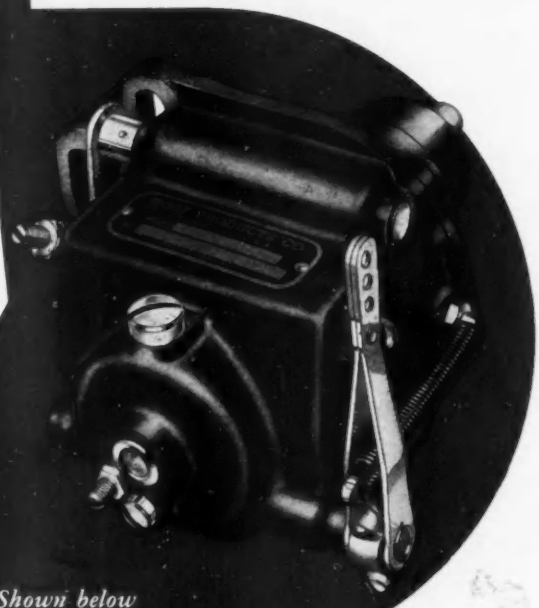
Detroit Office: General Motors Building

**FOOTBURT** *Surface Broaching*

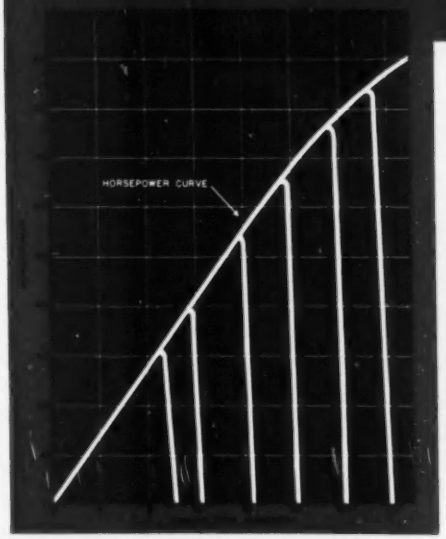
*a time tested line of machine tools*

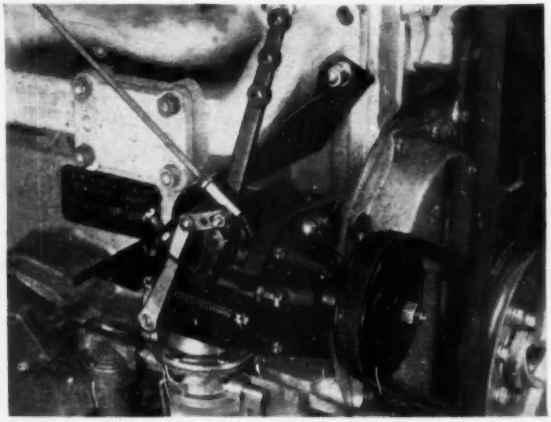
# HOOF MECHANICAL GOVERNORS

- Provide close regulation over wide operating range, without spring change.
- Employ ball or roller bearings at all load points.
- Do not require daily oilings; use oil seals throughout and have large oil capacity.



*Performance Graph of Installation Shown below*



Hoof Mechanical Governor installed on well known industrial engine

**HOOF PRODUCTS COMPANY**
6543 South Laramie Avenue, Chicago 38, Illinois

CORRESPONDENCE IS INVITED

GOVERNORS • VELOCITY AND CENTRIFUGAL TYPES • HYDRAULIC VALVES FOR AIRCRAFT

SEALED WITH VICTOR

It's only natural that VICTOR ...the world's leading gasket maker ...also produces the finest quality oil seals



VICTOR

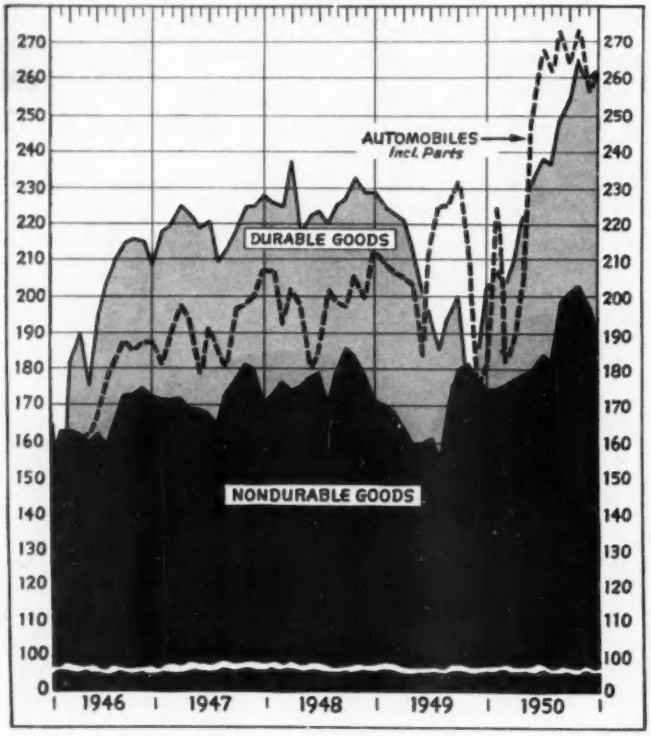
Gaskets and Oil Seals

VICTOR GASKETS AND OIL SEALS
SEALING PRODUCTS THROUGH RESEARCH

# INDUSTRIAL PRODUCTION

## INDEXES OF INDUSTRIAL PRODUCTION

FEDERAL RESERVE BOARD, 1935-39 = 100




### Total Industrial Production

Unadjusted for Seasonal Variation

| | 1950 | 1949 | 1948 | 1947 | 1946 |
|---|---|---|---|---|---|
| Jan. | 179 | 187 | 189 | 185 | 156 |
| Feb. | 177 | 185 | 190 | 185 | 148 |
| Mar. | 183 | 181 | 188 | 187 | 164 |
| Apr. | 188 | 177 | 186 | 185 | 163 |
| May | 195 | 174 | 192 | 186 | 159 |
| June | 200 | 170 | 193 | 185 | 171 |
| July | 198 | 163 | 187 | 178 | 174 |
| Aug. | 212 | 174 | 194 | 185 | 180 |
| Sept. | 216 | 179 | 197 | 190 | 184 |
| Oct. | 221 | 189 | 199 | 194 | 185 |
| Nov. | 216 | 174 | 195 | 193 | 183 |
| Dec. | 214 | 178 | 190 | 190 | 180 |
| Average | 200 | 176 | 192 | 187 | 170 |

World War II Peak—1943 ..... 235

### Manufactures

| | 1950 | 1949 | 1948 | 1947 | 1946 |
|---|---|---|---|---|---|
| Jan. | 189 | 195 | 197 | 192 | 160 |
| Feb. | 188 | 193 | 197 | 193 | 161 |
| Mar. | 191 | 190 | 197 | 195 | 170 |
| Apr. | 197 | 183 | 193 | 193 | 174 |
| May | 203 | 179 | 197 | 191 | 167 |
| June | 209 | 176 | 199 | 191 | 176 |
| July | 207 | 169 | 193 | 184 | 178 |
| Aug. | 221 | 181 | 200 | 191 | 186 |
| Sept. | 225 | 189 | 203 | 196 | 191 |
| Oct. | 230 | 179 | 205 | 200 | 191 |
| Nov. | 226 | 179 | 202 | 200 | 192 |
| Dec. | 227 | 188 | 197 | 197 | 188 |
| Average | 209 | 183 | 198 | 194 | 177 |

World War II Peak—1943 ..... 258

### Durable Goods

| | 1950 | 1949 | 1948 | 1947 | 1946 |
|---|---|---|---|---|---|
| Jan. | 206 | 225 | 226 | 218 | 164 |
| Feb. | 204 | 223 | 224 | 220 | 136 |
| Mar. | 210 | 221 | 228 | 224 | 181 |
| Apr. | 221 | 212 | 217 | 222 | 190 |
| May | 232 | 202 | 222 | 219 | 175 |
| June | 238 | 195 | 223 | 220 | 194 |
| July | 227 | 186 | 220 | 209 | 208 |
| Aug. | 249 | 194 | 224 | 212 | 210 |
| Sept. | 254 | 200 | 227 | 218 | 214 |
| Oct. | 264 | 176 | 232 | 224 | 216 |
| Nov. | 260 | 181 | 229 | 224 | 214 |
| Dec. | 266 | 201 | 229 | 228 | 209 |
| Average | 237 | 202 | 225 | 220 | 192 |

World War II Peak—1943 ..... 360

### Nondurable Goods

| | 1950 | 1949 | 1948 | 1947 | 1946 |
|---|---|---|---|---|---|
| Jan. | 175 | 170 | 173 | 171 | 157 |
| Feb. | 176 | 168 | 176 | 171 | 162 |
| Mar. | 177 | 164 | 173 | 171 | 162 |
| Apr. | 178 | 159 | 174 | 169 | 161 |
| May | 180 | 160 | 177 | 169 | 160 |
| June | 184 | 161 | 179 | 168 | 162 |
| July | 182 | 156 | 171 | 164 | 159 |
| Aug. | 198 | 170 | 180 | 173 | 166 |
| Sept. | 201 | 179 | 185 | 178 | 172 |
| Oct. | 202 | 181 | 183 | 181 | 178 |
| Nov. | 197 | 178 | 179 | 180 | 174 |
| Dec. | 192 | 175 | 171 | 171 | 172 |
| Average | 187 | 168 | 177 | 172 | 165 |

World War II Peak—1943 ..... 176

### Minerals

| | 1950 | 1949 | 1948 | 1947 | 1946 |
|---|---|---|---|---|---|
| Jan. | 125 | 143 | 149 | 141 | 134 |
| Feb. | 113 | 143 | 149 | 141 | 134 |
| Mar. | 139 | 131 | 136 | 143 | 130 |
| Apr. | 138 | 146 | 145 | 129 | 99 |
| May | 147 | 148 | 164 | 153 | 115 |
| June | 155 | 137 | 162 | 153 | 141 |
| July | 149 | 128 | 158 | 145 | 150 |
| Aug. | 163 | 134 | 164 | 155 | 147 |
| Sept. | 168 | 123 | 160 | 158 | 149 |
| Oct. | 169 | 112 | 161 | 158 | 147 |
| Nov. | 160 | 141 | 160 | 155 | 135 |
| Dec. | 158 | 128 | 151 | 151 | 132 |
| Average | 148 | 135 | 155 | 149 | 134 |

World War II Peak—1944 ..... 149

### Automobiles (Incl. Parts)

| | 1950 | 1949 | 1948 | 1947 | 1946 |
|---|---|---|---|---|---|
| Jan. | 224 | 209 | 206 | 181 | 107 |
| Feb. | 182 | 206 | 192 | 190 | 98 |
| Mar. | 189 | 204 | 202 | 197 | 114 |
| Apr. | 204 | 202 | 197 | 193 | 161 |
| May | 249 | 184 | 179 | 179 | 162 |
| June | 268 | 211 | 185 | 191 | 167 |
| July | 262 | 225 | 202 | 185 | 176 |
| Aug. | 273 | 225 | 198 | 180 | 182 |
| Sept. | 264 | 231 | 197 | 197 | 188 |
| Oct. | 273 | 216 | 206 | 198 | 185 |
| Nov. | 251 | 175 | 200 | 200 | 187 |
| Dec. | 264 | 181 | 212 | 206 | 187 |
| Average | 242 | 206 | 197 | 191 | 159 |

World War II Peak—1944 ..... 231

## MANUFACTURERS' SALES

Unadjusted for Seasonal Variation

### Total Manufacturing

| | |
|---|---|
| 1950 | $235,647,000,000 |
| 1949 | 199,993,000,000 |
| 1948 | 213,732,000,000 |
| 1947 | 191,010,000,000 |
| 1946 | 151,402,000,000 |
| 1945 | 154,481,000,000 |
| 1944 | 165,387,000,000 |
| 1943 | 152,843,000,000 |
| 1942 | 125,158,000,000 |
| 1941 | 98,869,000,000 |

### Durable Goods

| | |
|---|---|
| 1950 | $104,388,000,000 |
| 1949 | 83,518,000,000 |
| 1948 | 88,900,000,000 |
| 1947 | 77,618,000,000 |
| 1946 | 57,108,000,000 |
| 1945 | 72,504,000,000 |
| 1944 | 84,481,000,000 |
| 1943 | 79,329,000,000 |
| 1942 | 59,985,000,000 |
| 1941 | 44,207,000,000 |

### Automobiles (Incl. Parts)

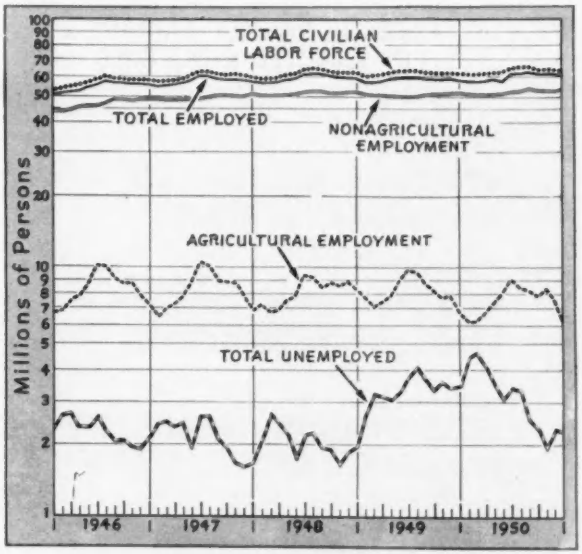
| | |
|---|---|
| 1950 | $17,803,000,000 |
| 1949 | 15,238,000,000 |
| 1948 | 13,894,000,000 |
| 1947 | 11,478,000,000 |
| 1946 | 6,624,000,000 |
| 1945 | 11,446,000,000 |
| 1944 | 15,096,000,000 |
| 1943 | 13,422,000,000 |
| 1942 | 7,956,000,000 |
| 1941 | 6,530,000,000 |

# THE LABOR FORCE

## TOTAL U. S. EMPLOYMENT—BUREAU OF LABOR STATISTICS

In Thousands

| | Total Labor Force: Incl. Armed Services | Total Labor Force: Civilian Force | Total Employment | Total Unemployment |
|---|---|---|---|---|
| **1950** | | | | |
| Jan. | 62,835 | 61,427 | 56,947 | 4,480 |
| Feb. | 63,003 | 61,637 | 56,953 | 4,684 |
| Mar. | 63,021 | 61,675 | 57,551 | 4,123 |
| Apr. | 63,513 | 62,183 | 58,668 | 3,515 |
| May | 64,108 | 62,788 | 59,731 | 3,057 |
| June | 66,177 | 64,866 | 61,482 | 3,384 |
| July | 65,742 | 64,427 | 61,214 | 3,213 |
| Aug. | 66,204 | 64,867 | 62,367 | 2,500 |
| Sept. | 65,020 | 63,567 | 61,226 | 2,341 |
| Oct. | 65,438 | 63,704 | 61,764 | 1,940 |
| Nov. | 65,453 | 63,512 | 61,271 | 2,240 |
| Dec. | | 62,538 | 60,308 | 2,229 |
| Average | 64,592 | 63,099 | 59,957 | 3,142 |
| **1942** | | | | |
| Jan. | 61,546 | 60,078 | 57,414 | 2,664 |
| Feb. | 61,896 | 60,388 | 57,168 | 3,221 |
| Mar. | 62,305 | 60,814 | 57,647 | 3,167 |
| Apr. | 62,327 | 60,835 | 57,819 | 3,016 |
| May | 63,452 | 61,983 | 58,694 | 3,289 |
| June | 64,866 | 63,398 | 59,619 | 3,778 |
| July | 65,278 | 63,815 | 59,720 | 4,095 |
| Aug. | 65,105 | 63,637 | 59,947 | 3,689 |
| Sept. | 64,222 | 62,763 | 59,411 | 3,351 |
| Oct. | 64,021 | 62,576 | 59,001 | 3,576 |
| Nov. | 64,363 | 62,927 | 59,518 | 3,409 |
| Dec. | 63,475 | 62,045 | 58,556 | 3,489 |
| Average | 63,571 | 62,105 | 58,710 | 3,395 |
| **1948** | | | | |
| Jan. | 60,455 | 59,214 | 57,149 | 2,065 |
| Feb. | 61,004 | 59,778 | 57,139 | 2,639 |
| Mar. | 61,005 | 59,769 | 57,329 | 2,440 |
| Apr. | 61,760 | 60,524 | 58,330 | 2,193 |
| May | 61,660 | 60,422 | 58,660 | 1,761 |
| June | 64,740 | 63,479 | 61,296 | 2,184 |
| July | 65,135 | 63,842 | 61,615 | 2,227 |
| Aug. | 64,511 | 63,186 | 61,245 | 1,941 |
| Sept. | 63,578 | 62,212 | 60,312 | 1,899 |
| Oct. | 63,166 | 61,775 | 60,134 | 1,642 |
| Nov. | 63,138 | 61,724 | 59,893 | 1,831 |
| Dec. | 62,828 | 61,375 | 59,434 | 1,941 |
| Average | 62,748 | 61,442 | 59,378 | 2,064 |




## Employment by Sex

In Thousands

| | Total Civilian Labor Force: Male | Total Civilian Labor Force: Female | Total Employment: Male | Total Employment: Female |
|---|---|---|---|---|
| **1950** | | | | |
| Jan. | 43,715 | 17,712 | 40,453 | 16,494 |
| Feb. | 43,769 | 17,868 | 40,343 | 16,610 |
| Mar. | 43,879 | 17,796 | 40,877 | 16,674 |
| Apr. | 44,120 | 18,063 | 41,492 | 17,176 |
| May | 44,316 | 18,472 | 42,186 | 17,545 |
| June | 45,429 | 19,437 | 43,229 | 18,253 |
| July | 45,708 | 18,719 | 43,582 | 17,632 |
| Aug. | 45,818 | 19,049 | 44,154 | 18,213 |
| Sept. | 44,726 | 18,841 | 43,244 | 17,982 |
| Oct. | 44,268 | 19,436 | 43,096 | 18,668 |
| Nov. | 44,019 | 19,493 | 42,710 | 18,561 |
| Dec. | 43,535 | 19,003 | 42,076 | 18,232 |
| Average | 44,442 | 18,657 | 42,287 | 17,670 |
| **1949** | | | | |
| Jan. | 43,161 | 16,917 | 41,150 | 16,264 |
| Feb. | 43,229 | 17,159 | 40,812 | 16,356 |
| Mar. | 43,525 | 17,289 | 41,092 | 16,556 |
| Apr. | 43,668 | 17,117 | 41,463 | 16,356 |
| May | 43,856 | 18,017 | 41,521 | 17,173 |
| June | 44,832 | 18,566 | 42,233 | 17,386 |
| July | 45,267 | 18,548 | 42,422 | 17,298 |
| Aug. | 45,163 | 18,474 | 42,644 | 17,302 |
| Sept. | 44,319 | 18,444 | 42,085 | 17,326 |
| Oct. | 43,988 | 18,588 | 41,426 | 17,575 |
| Nov. | 44,099 | 18,828 | 41,783 | 17,725 |
| Dec. | 43,763 | 18,280 | 41,293 | 17,263 |
| Average | 44,075 | 18,030 | 41,660 | 17,049 |
| **Monthly Averages** | | | | |
| 1950 | 44,442 | 18,657 | 42,287 | 17,670 |
| 1949 | 44,075 | 18,030 | 41,660 | 17,049 |
| 1948 | 43,858 | 17,584 | 42,428 | 16,950 |
| 1947 | 43,272 | 16,896 | 41,677 | 16,350 |
| 1946 | 40,740 | 16,780 | 38,940 | 16,310 |
| 1945 | 34,830 | 19,030 | 34,210 | 18,610 |

## Production Workers

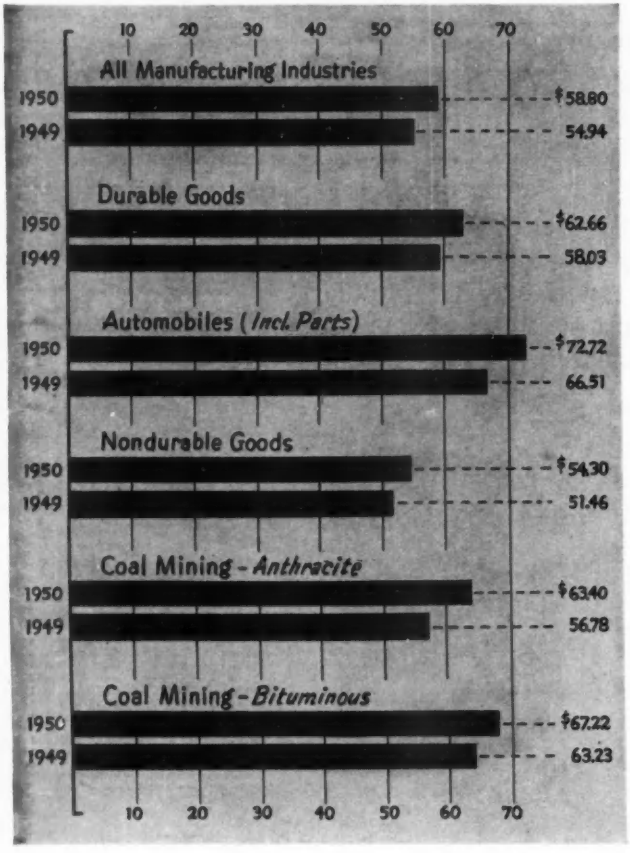
In Thousands

| | Employment: Agricultural | Employment: Nonagricultural | Production Workers: All Mfg. | Production Workers: Durable Goods | Production Workers: Automobiles (Incl. Parts) | Production Workers: Nondurable Goods |
|---|---|---|---|---|---|---|
| Jan. | 6,198 | 50,749 | 11,449 | 6,000 | 675 | 5,449 |
| Feb. | 6,223 | 50,730 | 11,460 | 5,982 | 567 | 5,478 |
| Mar. | 6,675 | 50,877 | 11,549 | 6,070 | 576 | 5,479 |
| Apr. | 7,195 | 51,473 | 11,597 | 6,195 | 595 | 5,402 |
| May | 8,062 | 51,669 | 11,841 | 6,456 | 736 | 5,385 |
| June | 9,046 | 52,436 | 12,066 | 6,596 | 765 | 5,470 |
| July | 8,440 | 52,774 | 12,151 | 6,597 | 757 | 5,554 |
| Aug. | 8,160 | 54,207 | 12,802 | 6,900 | 761 | 5,902 |
| Sept. | 7,811 | 53,415 | 13,016 | 7,013 | 788 | 6,003 |
| Oct. | 8,491 | 53,273 | 13,133 | 7,181 | 796 | 5,952 |
| Nov. | 7,551 | 53,721 | 13,022 | 7,190 | 744 | 5,832 |
| Dec. | 6,234 | 54,075 | 12,975 | 7,210 | ... | 5,765 |
| Average | 7,507 | 52,450 | 12,255 | 6,616 | 705 | 5,639 |
| **1949** | | | | | | |
| Jan. | 6,763 | 50,651 | 12,201 | 6,640 | 665 | 5,561 |
| Feb. | 6,993 | 50,174 | 12,074 | 6,523 | 649 | 5,551 |
| Mar. | 7,393 | 50,254 | 11,904 | 6,417 | 646 | 5,487 |
| Apr. | 7,820 | 49,999 | 11,616 | 6,262 | 649 | 5,354 |
| May | 8,974 | 49,720 | 11,324 | 6,057 | 601 | 5,267 |
| June | 9,696 | 49,924 | 11,337 | 6,022 | 646 | 5,315 |
| July | 9,647 | 50,073 | 11,211 | 5,894 | 670 | 5,317 |
| Aug. | 8,507 | 51,441 | 11,561 | 5,947 | 678 | 5,614 |
| Sept. | 8,158 | 51,254 | 11,775 | 6,060 | 686 | 5,715 |
| Oct. | 7,710 | 51,290 | 11,368 | 5,651 | 666 | 5,717 |
| Nov. | 7,878 | 51,640 | 11,283 | 5,713 | 682 | 5,570 |
| Dec. | 6,773 | 51,783 | 11,513 | 5,965 | 585 | 5,548 |
| Average | 8,026 | 50,684 | 11,597 | 6,096 | 644 | 5,501 |
| **1948** | | | | | | |
| Jan. | 7,060 | 50,089 | 12,892 | 7,046 | 676 | 5,847 |
| Feb. | 6,771 | 50,368 | 12,802 | 6,961 | 617 | 5,841 |
| Mar. | 6,847 | 50,482 | 12,824 | 7,016 | 671 | 5,808 |
| Apr. | 7,448 | 50,883 | 12,476 | 6,885 | 658 | 5,591 |
| May | 7,861 | 50,800 | 12,394 | 6,820 | 652 | 5,574 |
| June | 9,396 | 51,899 | 12,559 | 6,810 | 634 | 5,749 |
| July | 9,162 | 52,452 | 12,571 | 6,818 | 670 | 5,753 |
| Aug. | 8,444 | 52,801 | 12,804 | 6,856 | 642 | 5,948 |
| Sept. | 8,723 | 51,590 | 13,017 | 6,940 | 661 | 6,077 |
| Oct. | 8,267 | 51,506 | 12,913 | 6,969 | 672 | 5,944 |
| Nov. | 7,961 | 51,932 | 12,775 | 6,942 | 669 | 5,833 |
| Dec. | 7,375 | 52,059 | 12,578 | 6,845 | 670 | 5,733 |
| Average | 7,973 | 51,465 | 12,717 | 6,909 | 658 | 5,808 |

# WAGES

## EARNINGS OF PRODUCTION WORKERS— BUREAU OF LABOR STATISTICS

### AVERAGE WEEKLY EARNINGS IN SELECTED INDUSTRIES




| | Average Earnings | | "Real" Weekly Earnings‡ | Average Hrs. per Week |
|---|---|---|---|---|
| | Hourly | Weekly | | |
| **All Manufacturing** | | | | |
| | | 1950 | | |
| Jan. | $1.418 | $56.29 | $33.73 | 39.7 |
| Feb. | 1.420 | 56.37 | 33.86 | 39.7 |
| Mar. | 1.424 | 56.53 | 33.85 | 39.7 |
| Apr. | 1.434 | 56.93 | 34.03 | 39.7 |
| May | 1.442 | 57.54 | 34.13 | 39.9 |
| June | 1.453 | 58.85 | 34.58 | 40.5 |
| July | 1.462 | 59.21 | 34.32 | 40.5 |
| Aug. | 1.464 | 60.32 | 34.87 | 41.2 |
| Sept. | 1.480 | 60.68 | 34.91 | 41.0 |
| Oct. | 1.501 | 61.99 | 35.46 | 41.3 |
| Nov. | 1.514 | 62.38 | 35.34 | 41.2 |
| Dec. | 1.542 | 64.15 | 35.96 | 41.6 |
| Aver. | $1.463 | $59.27 | $34.59 | 40.5 |
| | | 1949 | | |
| Jan. | $1.405 | $55.50 | $32.47 | 39.5 |
| Feb. | 1.401 | 55.20 | 32.66 | 39.4 |
| Mar. | 1.486 | 59.74 | 35.77 | 40.2 |
| Apr. | 1.401 | 53.80 | 31.70 | 38.4 |
| May | 1.401 | 54.06 | 31.96 | 38.6 |
| June | 1.405 | 54.51 | 32.14 | 38.8 |
| July | 1.408 | 54.63 | 32.42 | 38.8 |
| Aug. | 1.399 | 54.70 | 32.41 | 39.1 |
| Sept. | 1.407 | 55.72 | 32.85 | 39.6 |
| Oct. | 1.392 | 55.26 | 32.80 | 39.7 |
| Nov. | 1.393 | 54.74 | 32.47 | 39.3 |
| Dec. | 1.410 | 56.40 | 33.67 | 40.0 |
| Aver. | $1.402 | $54.94 | $32.49 | 39.2 |
| **Durable Goods** | | | | |
| | | 1950 | | |
| Jan. | $1.485 | $59.40 | $35.59 | 40.0 |
| Feb. | 1.483 | 59.47 | 35.72 | 40.1 |
| Mar. | 1.486 | 59.74 | 36.77 | 40.2 |
| Apr. | 1.499 | 61.01 | 36.47 | 40.7 |
| May | 1.509 | 61.57 | 36.52 | 40.8 |
| June | 1.522 | 62.86 | 36.93 | 41.3 |
| July | 1.533 | 63.01 | 36.53 | 41.1 |
| Aug. | 1.539 | 64.33 | 37.18 | 41.8 |
| Sept. | 1.562 | 65.14 | 37.50 | 41.7 |
| Oct. | 1.577 | 66.55 | 37.98 | 42.2 |
| Nov. | 1.588 | 66.54 | 37.75 | 41.9 |
| Dec. | 1.615 | 68.64 | 38.47 | 42.5 |
| Aver. | $1.533 | $63.19 | $36.87 | 41.2 |
| | | 1949 | | |
| Jan. | $1.467 | $58.83 | $34.42 | 40.1 |
| Feb. | 1.466 | 58.49 | 34.60 | 39.9 |
| Mar. | 1.464 | 57.83 | 34.12 | 39.5 |
| Apr. | 1.467 | 57.21 | 33.71 | 39.0 |
| May | 1.467 | 57.21 | 33.81 | 39.0 |
| June | 1.475 | 57.82 | 34.09 | 39.3 |
| July | 1.477 | 57.31 | 34.01 | 38.8 |
| Aug. | 1.473 | 57.89 | 34.29 | 39.3 |
| Sept. | 1.482 | 58.69 | 34.69 | 39.6 |
| Oct. | 1.458 | 58.17 | 34.53 | 39.9 |
| Nov. | 1.459 | 57.34 | 34.01 | 39.3 |
| Dec. | 1.478 | 59.56 | 35.56 | 40.3 |
| Aver. | $1.469 | $58.03 | $34.32 | 39.5 |
| **Automobiles (Incl. Parts)** | | | | |
| | | 1950 | | |
| Jan. | $1.715 | $70.14 | $42.02 | 40.9 |
| Feb. | 1.708 | 67.64 | 40.62 | 39.6 |
| Mar. | 1.710 | 69.08 | 41.36 | 40.4 |
| Apr. | 1.748 | 73.77 | 44.09 | 42.2 |
| May | 1.731 | 71.66 | 42.50 | 41.4 |
| June | 1.770 | 75.76 | 44.51 | 42.8 |
| July | 1.766 | 74.35 | 43.10 | 42.1 |
| Aug. | 1.778 | 75.21 | 43.47 | 42.3 |
| Sept. | 1.818 | 73.81 | 42.46 | 40.6 |
| Oct. | 1.830 | 75.76 | 43.34 | 41.4 |
| Nov. | 1.844 | 75.05 | 42.74 | 40.7 |
| Dec. | .... | .... | .... | .... |
| Aver. | $1.765 | $72.93 | $42.75 | 41.31 |
| | | 1949 | | |
| Jan. | $1.702 | $67.74 | $39.64 | 39.8 |
| Feb. | 1.694 | 66.91 | 39.59 | 39.5 |
| Mar. | 1.670 | 62.96 | 37.14 | 37.7 |
| Apr. | 1.678 | 64.77 | 38.17 | 38.6 |
| May | 1.695 | 63.22 | 37.36 | 37.3 |
| June | 1.699 | 66.94 | 39.46 | 39.4 |
| July | 1.704 | 68.67 | 40.75 | 40.3 |
| Aug. | 1.703 | 67.78 | 40.15 | 39.8 |
| Sept. | 1.716 | 69.33 | 40.88 | 40.4 |
| Oct. | 1.689 | 65.87 | 39.09 | 39.0 |
| Nov. | 1.687 | 64.61 | 38.32 | 38.3 |
| Dec. | 1.719 | 69.28 | 41.36 | 40.3 |
| Aver. | $1.696 | $66.51 | $39.33 | 39.2 |

‡ Weekly Earnings adjusted to Consumers' Price Index.

**Nondurable Goods**

| | Average Earnings | | "Real" Weekly Earnings‡ | Average Hrs. per Week |
|---|---|---|---|---|
| | Hourly | Weekly | | |
| | | 1950 | | |
| Jan. | $1.343 | $52.91 | $31.76 | 39.4 |
| Feb. | 1.350 | 53.06 | 31.87 | 39.3 |
| Mar. | 1.353 | 53.04 | 31.76 | 39.2 |
| Apr. | 1.355 | 52.17 | 31.18 | 38.5 |
| May | 1.358 | 52.83 | 31.33 | 38.9 |
| June | 1.365 | 53.92 | 31.68 | 39.5 |
| July | 1.375 | 54.73 | 31.73 | 39.8 |
| Aug. | 1.374 | 55.65 | 32.17 | 40.5 |
| Sept. | 1.379 | 55.30 | 31.94 | 40.1 |
| Oct. | 1.405 | 56.62 | 31.84 | 40.3 |
| Nov. | 1.419 | 57.19 | 32.35 | 40.3 |
| Dec. | 1.446 | 58.56 | 32.82 | 40.5 |
| Aver. | $1.377 | $54.66 | $31.86 | 39.7 |
| | | 1949 | | |
| Jan. | $1.327 | $51.35 | $30.05 | 38.7 |
| Feb. | 1.322 | 51.33 | 30.37 | 38.8 |
| Mar. | 1.323 | 51.07 | 30.13 | 38.6 |
| Apr. | 1.321 | 49.47 | 29.27 | 37.6 |
| May | 1.323 | 50.41 | 29.79 | 38.1 |
| June | 1.324 | 50.97 | 30.05 | 38.5 |
| July | 1.332 | 51.55 | 30.59 | 38.7 |
| Aug. | 1.319 | 51.31 | 30.40 | 38.9 |
| Sept. | 1.328 | 52.59 | 31.01 | 39.6 |
| Oct. | 1.325 | 52.47 | 31.14 | 39.6 |
| Nov. | 1.325 | 52.07 | 30.88 | 39.3 |
| Dec. | 1.334 | 52.73 | 31.48 | 39.5 |
| Aver. | $1.325 | $51.46 | $30.43 | 38.8 |

‡ Weekly earnings adjusted to Consumers' Price Index.

# COST OF LIVING

## CONSUMERS' PRICE INDEX—BUREAU OF LABOR STATISTICS

Monthly Average of 1935-1939 = 100

**All Items**

| | 1950 | 1949 | 1948 | 1947 |
|---|---|---|---|---|
| Jan. | 166.9 | 170.9 | 168.8 | 153.3 |
| Feb. | 166.5 | 169.0 | 167.5 | 153.2 |
| Mar. | 167.0 | 169.5 | 166.9 | 156.3 |
| Apr. | 167.3 | 169.7 | 169.3 | 156.2 |
| May | 168.6 | 169.2 | 170.5 | 156.0 |
| June | 170.3 | 169.6 | 171.7 | 157.1 |
| July | 172.5 | 168.5 | 172.7 | 158.4 |
| Aug. | 173.0 | 168.8 | 174.5 | 160.3 |
| Sept. | 173.8 | 169.6 | 174.5 | 162.8 |
| Oct. | 174.8 | 168.5 | 173.6 | 163.8 |
| Nov. | 175.6 | 168.6 | 172.2 | 164.9 |
| Dec. | 178.4 | 167.5 | 171.4 | 167.0 |
| Average | 171.2 | 169.1 | 171.3 | 159.2 |

**Apparel**

| | 1950 | 1949 | 1948 | 1947 |
|---|---|---|---|---|
| Jan. | 185.0 | 196.5 | 192.1 | 179.0 |
| Feb. | 184.8 | 195.1 | 195.1 | 181.5 |
| Mar. | 185.0 | 193.9 | 196.3 | 184.3 |
| Apr. | 185.1 | 192.5 | 196.4 | 184.9 |
| May | 185.1 | 191.3 | 197.5 | 185.0 |
| June | 185.0 | 190.3 | 196.9 | 185.7 |
| July | 184.7 | 188.5 | 147.1 | 184.7 |
| Aug. | 185.9 | 187.4 | 199.7 | 186.9 |
| Sept. | 190.5 | 187.2 | 201.0 | 187.6 |
| Oct. | 193.4 | 186.8 | 201.6 | 189.0 |
| Nov. | 195.0 | 186.3 | 201.4 | 190.2 |
| Dec. | 196.4 | 185.8 | 200.4 | 191.2 |
| Average | 188.0 | 190.1 | 195.0 | 185.8 |

**Food**

| | 1950 | 1949 | 1948 | 1947 |
|---|---|---|---|---|
| Jan. | 196.0 | 204.8 | 209.7 | 183.8 |
| Feb. | 194.8 | 198.7 | 204.7 | 182.3 |
| Mar. | 196.0 | 201.6 | 202.3 | 189.5 |
| Apr. | 196.6 | 202.8 | 207.9 | 188.0 |
| May | 200.3 | 202.4 | 210.9 | 187.6 |
| June | 204.6 | 204.3 | 214.1 | 190.5 |
| July | 210.0 | 201.7 | 216.8 | 193.1 |
| Aug. | 209.0 | 202.6 | 216.6 | 196.5 |
| Sept. | 208.5 | 204.2 | 215.2 | 203.5 |
| Oct. | 209.0 | 206.4 | 211.5 | 201.6 |
| Nov. | 209.5 | 206.8 | 207.5 | 202.7 |
| Dec. | 215.4 | 197.3 | 205.0 | 206.9 |
| Average | 204.1 | 201.9 | 210.2 | 193.8 |

**Fuel and Light**

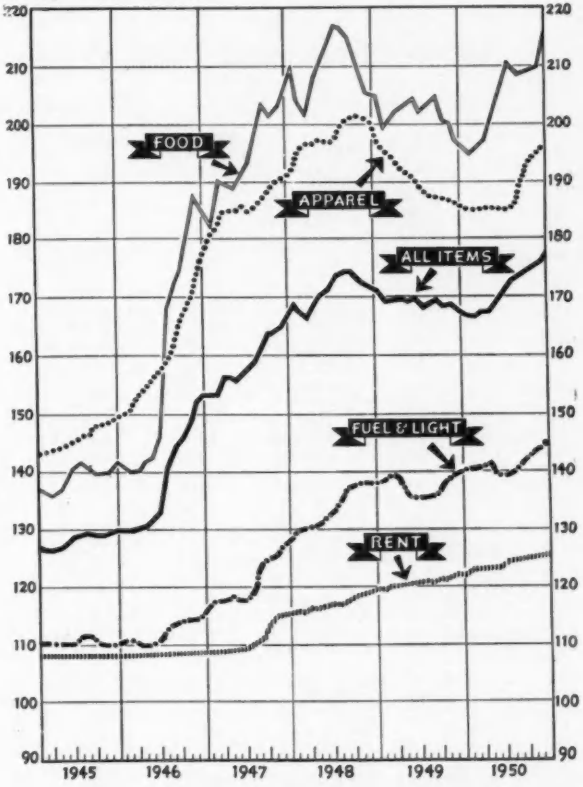
| | 1950 | 1949 | 1948 | 1947 |
|---|---|---|---|---|
| Jan. | 140.0 | 138.3 | 129.5 | 117.9 |
| Feb. | 140.3 | 138.8 | 130.0 | 117.5 |
| Mar. | 140.9 | 138.9 | 130.3 | 117.6 |
| Apr. | 141.4 | 137.4 | 130.7 | 118.4 |
| May | 138.8 | 135.4 | 131.8 | 117.7 |
| June | 138.9 | 135.6 | 132.6 | 117.7 |
| July | 139.5 | 135.6 | 134.8 | 119.6 |
| Aug. | 140.9 | 135.8 | 136.8 | 122.8 |
| Sept. | 141.8 | 137.0 | 137.3 | 124.6 |
| Oct. | 143.1 | 138.4 | 137.8 | 125.2 |
| Nov. | 143.7 | 139.1 | 137.9 | 126.9 |
| Dec. | 144.1 | 139.7 | 137.8 | 127.8 |
| Average | 141.1 | 137.5 | 133.9 | 121.1 |

**House Furnishings**

| | 1950 | 1949 | 1948 | 1947 |
|---|---|---|---|---|
| Jan. | 184.7 | 196.5 | 192.3 | 179.1 |
| Feb. | 185.3 | 195.6 | 193.0 | 180.8 |
| Mar. | 185.4 | 193.8 | 194.9 | 182.3 |
| Apr. | 185.6 | 191.9 | 194.7 | 182.5 |
| May | 185.4 | 189.5 | 193.6 | 181.9 |
| June | 185.2 | 187.3 | 194.8 | 182.6 |
| July | 186.4 | 186.8 | 195.9 | 184.8 |
| Aug. | 189.3 | 184.8 | 196.3 | 184.3 |
| Sept. | 195.4 | 185.6 | 198.1 | 187.5 |
| Oct. | 199.8 | 185.2 | 198.8 | 187.8 |
| Nov. | 202.3 | 185.4 | 198.7 | 188.9 |
| Dec. | 204.8 | 185.4 | 198.6 | 191.4 |
| Average | 190.8 | 191.0 | 195.8 | 184.4 |

**Rent**

| | 1950 | 1949 | 1948 | 1947 |
|---|---|---|---|---|
| Jan. | 122.6 | 119.7 | 115.9 | 108.8 |
| Feb. | 122.8 | 119.9 | 116.0 | 108.9 |
| Mar. | 122.9 | 120.1 | 116.3 | 109.0 |
| Apr. | 123.1 | 120.3 | 116.3 | 109.0 |
| May | 123.5 | 120.4 | 116.5 | 109.2 |
| June | 123.9 | 120.6 | 117.0 | 109.2 |
| July | 124.3 | 120.7 | 117.2 | 110.0 |
| Aug. | 124.6 | 120.8 | 117.7 | 111.2 |
| Sept. | 124.8 | 121.2 | 118.5 | 113.6 |
| Oct. | 125.0 | 121.5 | 118.7 | 114.9 |
| Nov. | 125.4 | 122.0 | 118.8 | 115.2 |
| Dec. | 125.8 | 122.3 | 119.5 | 115.4 |
| Average | 124.0 | 120.8 | 117.4 | 111.3 |




## Wholesale Prices of Selected Commodities

Bureau of Labor Statistics' Indices, 1926 = 100

| 1950 | All Commodities | Farm Products | Foods | Textile Products | Metals and Metal Products | Building Materials | Raw Materials | Manufactured Products |
|---|---|---|---|---|---|---|---|---|
| Jan. | 151.5 | 164.7 | 154.8 | 138.5 | 168.4 | 191.6 | 159.8 | 148.2 |
| Feb. | 152.7 | 159.1 | 156.7 | 138.2 | 168.6 | 192.9 | 162.4 | 149.1 |
| Mar. | 152.7 | 159.4 | 155.6 | 137.8 | 168.5 | 194.2 | 162.8 | 148.9 |
| Apr. | 152.9 | 159.8 | 155.8 | 136.4 | 168.7 | 194.8 | 162.5 | 149.4 |
| May | 155.9 | 164.7 | 159.9 | 136.1 | 169.7 | 195.1 | 166.3 | 152.2 |
| June | 157.2 | 165.9 | 162.1 | 138.8 | 171.9 | 202.1 | 167.7 | 153.5 |
| July | 162.9 | 176.0 | 171.4 | 142.6 | 172.4 | 207.3 | 175.8 | 158.0 |
| Aug. | 166.4 | 177.8 | 174.6 | 149.5 | 174.3 | 213.9 | 179.1 | 161.3 |
| Sept. | 169.5 | 180.4 | 177.2 | 153.3 | 176.7 | 219.6 | 181.8 | 164.0 |
| Oct. | 169.1 | 177.8 | 172.5 | 153.1 | 178.6 | 218.9 | 180.2 | 163.5 |
| Nov. | 171.6 | 182.7 | 176.2 | 156.7 | 180.4 | 217.8 | 184.5 | 165.1 |
| Dec. | 174.2 | 188.8 | 180.7 | 171.2 | 184.7 | 221.5 | 187.2 | 168.9 |
| Average | 161.4 | 170.6 | 166.3 | 147.9 | 173.6 | 206.0 | 172.5 | 156.8 |
| **1949** | | | | | | | | |
| Jan. | 160.6 | 172.5 | 168.5 | 141.6 | 175.6 | 202.3 | 169.3 | 156.2 |
| Feb. | 158.1 | 168.3 | 161.5 | 145.2 | 175.5 | 201.5 | 165.8 | 154.0 |
| Mar. | 158.4 | 171.5 | 162.9 | 143.5 | 174.4 | 200.0 | 167.3 | 154.1 |
| Apr. | 156.9 | 170.5 | 162.9 | 142.2 | 171.8 | 196.5 | 165.8 | 153.0 |
| May | 155.7 | 171.2 | 163.8 | 140.5 | 168.4 | 193.9 | 165.9 | 151.6 |
| June | 154.5 | 168.6 | 162.4 | 139.1 | 167.1 | 191.4 | 164.5 | 150.6 |
| July | 153.6 | 166.2 | 161.3 | 138.0 | 167.9 | 189.6 | 163.2 | 149.8 |
| Aug. | 152.9 | 162.8 | 160.6 | 138.1 | 168.3 | 188.8 | 161.3 | 149.4 |
| Sept. | 152.5 | 163.1 | 162.0 | 139.0 | 168.2 | 189.4 | 162.0 | 150.1 |
| Oct. | 152.2 | 159.6 | 159.6 | 138.0 | 167.3 | 189.3 | 160.4 | 149.1 |
| Nov. | 151.6 | 156.8 | 158.9 | 138.0 | 167.3 | 189.6 | 160.4 | 148.2 |
| Dec. | 151.2 | 154.9 | 155.7 | 138.4 | 167.8 | 190.4 | 159.5 | 147.9 |
| Average | 155.0 | 165.6 | 161.6 | 140.4 | 170.2 | 193.8 | 163.9 | 151.2 |

# PRODUCTION

## PASSENGER CARS • TRUCKS • BUSES • TRACTORS • TRAILERS

### Factory Sales and Their Wholesale Value, U. S. Plants

| Year | PASSENGER CARS | | | TRUCKS AND BUSES | | | TOTAL | |
|---|---|---|---|---|---|---|---|---|
| | Number of Units | Wholesale Value | Average Wholesale Price | Number of Units | Wholesale Value † | Average Wholesale Price | Number of Units | Wholesale Value |
| 1900 | 4,192 | $4,899,443 | $1,169 | ..... | ..... | .... | 4,192 | $4,899,443 |
| 1901 | 7,000 | 8,183,000 | 1,169 | ..... | ..... | .... | 7,000 | 8,183,000 |
| 1902 | 9,000 | 10,395,000 | 1,155 | ..... | ..... | .... | 9,000 | 10,395,000 |
| 1903 | 11,235 | 13,000,000 | 1,157 | ..... | ..... | .... | 11,235 | 13,000,000 |
| 1904 | 22,130 | 23,357,692 | 1,055 | 700 | $1,272,747 | $1,818 | 22,830 | 24,630,439 |
| 1905 | 24,250 | 38,670,000 | 1,594 | 750 | 1,330,000 | 1,773 | 25,000 | 40,000,000 |
| 1906 | 33,200 | 61,460,000 | 1,851 | 800 | 1,440,000 | 1,800 | 34,000 | 62,900,000 |
| 1907 | 43,000 | 91,620,000 | 2,131 | 1,000 | 1,780,000 | 1,780 | 44,000 | 93,400,000 |
| 1908 | 63,500 | 135,250,000 | 2,129 | 1,500 | 2,550,000 | 1,700 | 65,000 | 137,800,000 |
| 1909 | 123,990 | 159,765,721 | 1,288 | 3,297 | 5,333,683 | 1,618 | 127,287 | 165,099,404 |
| 1910 | 181,000 | 215,340,000 | 1,189 | 6,000 | 9,660,000 | 1,610 | 187,000 | 225,000,000 |
| 1911 | 199,319 | 225,000,000 | 1,128 | 10,681 | 21,000,000 | 1,966 | 210,000 | 246,000,000 |
| 1912 | 356,000 | 335,000,000 | 941 | 22,000 | 43,000,000 | 1,954 | 378,000 | 378,000,000 |
| 1913 | 461,500 | 399,902,000 | 866 | 23,500 | 44,000,000 | 1,872 | 485,000 | 434,902,000 |
| 1914 | 548,139 | 420,838,378 | 768 | 24,900 | 44,219,096 | 1,776 | 573,039 | 465,057,474 |
| 1915 | 895,930 | 575,978,000 | 643 | 74,000 | 125,800,000 | 1,700 | 969,930 | 701,778,000 |
| 1916 | 1,525,578 | 921,378,000 | 604 | 92,130 | 161,000,000 | 1,747 | 1,617,708 | 1,082,378,000 |
| 1917 | 1,745,792 | 1,053,505,781 | 603 | 128,157 | 220,982,668 | 1,724 | 1,873,949 | 1,274,488,449 |
| 1918 | 943,436 | 801,937,925 | 850 | 227,250 | 434,168,992 | 1,910 | 1,170,686 | 1,236,106,917 |
| 1919 | 1,651,625 | 1,365,395,415 | 827 | 224,731 | 371,422,820 | 1,653 | 1,876,356 | 1,736,818,235 |
| 1920 | 1,905,560 | 1,809,170,963 | 949 | 321,789 | 423,249,410 | 1,315 | 2,227,349 | 2,232,420,373 |
| 1921 | 1,468,067 | 1,038,191,037 | 707 | 148,052 | 166,070,810 | 1,122 | 1,616,119 | 1,204,261,847 |
| 1922 | 2,274,185 | 1,494,513,991 | 657 | 269,991 | 226,049,658 | 837 | 2,544,176 | 1,720,563,649 |
| 1923 | 3,624,717 | 2,196,272,116 | 606 | 409,295 | 308,537,929 | 754 | 4,034,012 | 2,504,810,045 |
| 1924 | 3,185,881 | 1,970,096,559 | 618 | 416,659 | 318,580,580 | 765 | 3,602,540 | 2,288,677,139 |
| 1925 | 3,735,171 | 2,458,370,026 | 658 | 530,659 | 458,400,277 | 864 | 4,265,830 | 2,916,770,303 |
| 1926 | 3,783,987 | 2,640,064,519 | 698 | 516,947 | 452,123,435 | 875 | 4,300,934 | 3,092,187,954 |
| 1927 | 2,936,533 | 2,164,670,891 | 737 | 464,793 | 420,130,624 | 904 | 3,401,326 | 2,584,801,515 |
| 1928 | 3,815,417 | 2,576,489,623 | 675 | 543,324 | 437,132,258 | 804 | 4,358,759 | 3,013,621,881 |
| 1929 | 4,587,400 | 2,847,118,562 | 621 | 771,020 | 566,029,644 | 734 | 5,358,420 | 3,413,148,206 |
| 1930 | 2,784,745 | 1,645,398,523 | 591 | 571,241 | 389,436,690 | 682 | 3,355,986 | 2,034,835,213 |
| 1931 | 1,973,090 | 1,111,273,774 | 563 | 416,648 | 262,417,542 | 630 | 2,389,738 | 1,373,691,316 |
| 1932 | 1,135,491 | 618,291,168 | 544 | 235,187 | 136,193,336 | 579 | 1,370,678 | 754,484,504 |
| 1933 | 1,573,512 | 762,736,512 | 485 | 346,545 | 186,069,314 | 537 | 1,920,057 | 948,805,826 |
| 1934 | 2,177,919 | 1,147,116,195 | 527 | 575,192 | 320,143,667 | 557 | 2,753,111 | 1,467,259,862 |
| 1935 | 3,252,244 | 1,709,425,904 | 526 | 694,690 | 379,407,751 | 546 | 3,946,934 | 2,088,833,655 |
| 1936 | 3,669,528 | 2,015,646,217 | 549 | 784,587 | 462,820,474 | 590 | 4,454,115 | 2,478,466,691 |
| 1937 | 3,915,889 | 2,243,732,380 | 573 | 893,085 | 534,494,873 | 598 | 4,808,974 | 2,778,227,253 |
| 1938 | 2,060,985 | 1,236,802,411 | 618 | 488,100 | 334,147,530 | 685 | 2,489,085 | 1,570,949,941 |
| 1939 | 2,866,796 | 1,765,189,067 | 616 | 710,496 | 494,829,231 | 696 | 3,577,292 | 2,260,018,298 |
| 1940 | 3,717,385 | 2,370,654,083 | 638 | 754,901 | 567,820,414 | 752 | 4,472,286 | 2,938,474,497 |
| 1941 | 3,779,682 | 2,567,205,996 | 679 | 1,060,820 | 1,069,799,855 | 1,008 | 4,840,502 | 3,637,005,851 |
| 1942 | 222,862 | 163,813,559 | 736 | 818,662 | 1,427,456,801 | 1,744 | 1,041,524 | 1,591,270,360 |
| 1943‡ | 139 | 101,799 | .... | 699,689 | 1,451,794,475 | 2,076 | 699,828 | 1,451,896,274 |
| 1944‡ | 610 | 446,704 | .... | 737,524 | 1,700,928,939 | 2,306 | 738,134 | 1,701,375,643 |
| 1945 | 69,532 | 57,254,655 | 823 | 655,683 | 1,181,955,532 | 1,803 | 725,215 | 1,239,210,187 |
| 1946 | 2,148,699 | 1,979,781,084 | 921 | 940,851 | 1,043,247,276 | 1,109 | 3,089,550 | 3,023,028,360 |
| 1947 | 3,558,178 | 3,963,896,000 | 1,114 | 1,239,744 | 1,709,843,000 | 1,378 | 4,797,922 | 5,672,518,000 |
| 1948 | 3,909,270 | 4,853,402,000 | 1,242 | 1,376,155 | 1,858,210,000 | 1,350 | 5,285,425 | 6,711,612,000 |
| 1949 | 5,119,466 | 6,768,418,000 | 1,322 | 1,134,136 | 1,407,435,000 | 1,241 | 6,253,602 | 8,175,853,000 |
| 1950 | 6,665,628 | 8,729,000,000 | 1,309 | 1,337,154 | 1,747,500,000 | 1,307 | 8,002,782 | 10,476,500,000 |

**Note:** Table above includes sales of military vehicles. Prior to 1940 station wagons and other vehicles built on passenger car chassis are included with trucks. In 1940 and later years such vehicles built on passenger car chassis are included with passenger cars.

Values reported are for standard equipment only and exclude Federal excise taxes.

† A substantial part of the trucks reported comprises chassis only, without bodies; hence, the value of bodies for these chassis are not included.

‡ Actual value of passenger car factory sales for 1943 and 1944 are not available. Value figures are approximations based on the average value per unit in 1942. While production of passenger cars ended in February, 1942, some vehicles remained in factory stocks to be sold under rationing orders in 1943 and 1944.

# Monthly Motor Vehicle Factory Sales—by Years

From Plants Located in the United States

## PASSENGER CARS

| | 1950 | 1949 | 1948 | 1947 | 1946 | 1941 | 1940 | 1939 | 1938 | 1937 | 1936 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 487,824 | 326,859 | 305,081 | 246,605 | 56,367 | 413,012 | 363,120 | 281,465 | 155,505 | 309,094 | 297,692 |
| February | 385,361 | 324,601 | 274,847 | 267,015 | 57,784 | 397,067 | 339,595 | 243,000 | 139,380 | 296,788 | 224,211 |
| March | 469,618 | 403,388 | 349,998 | 301,525 | 85,810 | 416,016 | 356,351 | 299,703 | 174,065 | 403,879 | 342,870 |
| April | 455,193 | 437,058 | 308,071 | 314,765 | 132,631 | 378,906 | 364,096 | 273,409 | 176,078 | 439,980 | 416,431 |
| May | 575,518 | 395,765 | 225,461 | 284,357 | 166,942 | 421,631 | 327,873 | 237,870 | 154,958 | 425,432 | 384,921 |
| June | 720,688 | 493,670 | 312,406 | 307,124 | 141,090 | 423,008 | 289,228 | 246,704 | 136,531 | 411,414 | 375,327 |
| July | 595,067 | 483,581 | 356,764 | 279,621 | 209,180 | 347,967 | 174,218 | 150,738 | 106,841 | 360,406 | 371,922 |
| August | 682,782 | 557,624 | 342,822 | 261,158 | 247,261 | 78,348 | 47,894 | 61,407 | 58,624 | 311,456 | 209,351 |
| September | 616,827 | 534,861 | 301,170 | 307,942 | 232,280 | 166,397 | 223,593 | 161,625 | 65,159 | 118,671 | 90,101 |
| October | 651,169 | 488,176 | 383,755 | 315,969 | 283,586 | 296,554 | 421,777 | 251,819 | 187,494 | 298,662 | 190,242 |
| November | 504,445 | 381,874 | 364,440 | 305,148 | 269,081 | 259,631 | 408,817 | 285,252 | 320,344 | 295,328 | 241,085 |
| December | 521,136 | 292,009 | 378,455 | 366,939 | 266,665 | 180,210 | 400,913 | 373,804 | 326,006 | 244,385 | 425,365 |
| Total | 6,665,628 | 5,119,466 | 3,909,270 | 3,558,178 | 2,148,677 | 3,779,682 | 3,717,385 | 2,866,796 | 2,000,985 | 3,915,889 | 3,669,528 |

## TRUCKS AND BUSES

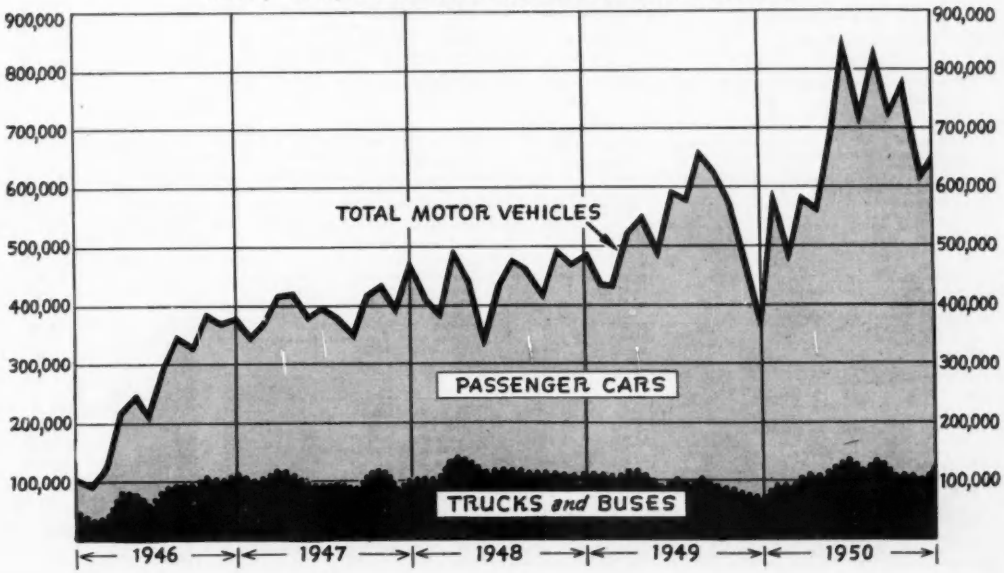
| | 1950 | 1949 | 1948 | 1947 | 1946 | 1941 | 1940 | 1939 | 1938 | 1937 | 1936 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 93,538 | 105,595 | 100,582 | 101,091 | 45,500 | 86,436 | 68,356 | 60,703 | 53,823 | 70,109 | 66,250 |
| February | 90,104 | 102,987 | 108,155 | 106,345 | 35,258 | 87,824 | 63,709 | 60,220 | 47,151 | 67,405 | 63,331 |
| March | 111,044 | 116,272 | 142,036 | 119,655 | 38,192 | 94,106 | 68,260 | 72,243 | 47,580 | 90,242 | 78,952 |
| April | 104,118 | 107,008 | 130,019 | 108,634 | 81,719 | 85,395 | 67,764 | 63,566 | 43,032 | 96,170 | 86,243 |
| May | 121,275 | 87,686 | 113,077 | 95,283 | 76,162 | 97,115 | 63,255 | 59,672 | 37,101 | 91,487 | 75,591 |
| June | 135,927 | 99,623 | 118,640 | 93,248 | 60,812 | 97,884 | 56,562 | 63,034 | 38,139 | 85,898 | 77,631 |
| July | 111,635 | 95,839 | 117,792 | 99,561 | 88,453 | 97,877 | 62,187 | 58,621 | 34,602 | 78,568 | 68,809 |
| August | 135,341 | 100,796 | 112,531 | 88,251 | 98,948 | 65,383 | 28,995 | 38,461 | 31,870 | 82,874 | 61,923 |
| September | 106,015 | 91,882 | 112,367 | 112,327 | 96,515 | 68,460 | 44,147 | 27,132 | 18,375 | 52,542 | 45,064 |
| October | 109,397 | 85,523 | 108,048 | 120,032 | 108,141 | 81,478 | 70,447 | 61,573 | 22,018 | 31,214 | 34,446 |
| November | 99,122 | 73,857 | 104,382 | 89,027 | 102,075 | 93,128 | 76,841 | 66,533 | 52,069 | 64,727 | 53,902 |
| December | 119,538 | 67,067 | 105,526 | 103,188 | 109,054 | 105,734 | 84,378 | 78,338 | 62,340 | 81,849 | 73,345 |
| Total | 1,337,154 | 1,134,136 | 1,376,155 | 1,239,642 | 940,830 | 1,060,820 | 754,901 | 710,496 | 488,100 | 893,085 | 784,587 |

## TOTAL CARS, TRUCKS AND BUSES

| | 1950 | 1949 | 1948 | 1947 | 1946 | 1941 | 1940 | 1939 | 1938 | 1937 | 1936 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 581,362 | 432,454 | 405,663 | 347,696 | 101,867 | 499,448 | 431,476 | 342,168 | 209,328 | 379,603 | 363,942 |
| February | 475,465 | 427,588 | 383,002 | 373,360 | 93,042 | 484,891 | 403,304 | 303,220 | 186,531 | 364,193 | 287,542 |
| March | 580,662 | 519,661 | 492,034 | 421,180 | 124,003 | 510,122 | 424,611 | 371,946 | 221,645 | 494,121 | 420,822 |
| April | 559,311 | 544,066 | 438,090 | 423,399 | 214,350 | 464,301 | 431,860 | 337,375 | 219,110 | 536,150 | 502,674 |
| May | 696,793 | 483,451 | 338,538 | 382,640 | 243,104 | 518,746 | 391,128 | 297,542 | 192,059 | 516,919 | 460,512 |
| June | 856,615 | 593,293 | 431,046 | 400,372 | 201,902 | 520,892 | 345,790 | 309,738 | 174,670 | 497,312 | 452,958 |
| July | 706,702 | 579,420 | 474,556 | 379,182 | 297,633 | 445,784 | 236,405 | 209,359 | 141,443 | 439,968 | 440,731 |
| August | 818,123 | 658,420 | 461,353 | 349,409 | 346,209 | 144,726 | 76,799 | 99,868 | 90,494 | 394,330 | 271,274 |
| September | 722,842 | 626,743 | 413,537 | 420,269 | 328,795 | 234,857 | 267,740 | 188,757 | 83,534 | 171,213 | 135,165 |
| October | 760,566 | 573,699 | 491,803 | 436,001 | 391,727 | 378,032 | 492,224 | 313,392 | 209,512 | 329,876 | 224,688 |
| November | 603,567 | 455,731 | 468,222 | 394,175 | 371,156 | 352,759 | 485,658 | 351,785 | 372,413 | 360,055 | 394,987 |
| December | 640,674 | 359,076 | 486,981 | 470,127 | 375,719 | 285,944 | 485,291 | 452,142 | 388,346 | 326,234 | 498,710 |
| Total | 8,002,782 | 6,253,602 | 5,285,425 | 4,797,820 | 3,089,507 | 4,840,502 | 4,472,286 | 3,577,292 | 2,489,085 | 4,808,974 | 4,454,115 |

Source: Bureau of the Census and Automobile Manufacturers Association. No monthly factory sales are available for war years, 1942 to 1945.

## MAY, 1950, PRODUCTION HIGHEST IN HISTORY



## Factory Sales to Domestic and Foreign Markets

Automobile Manufacturers Association

| | PASSENGER CARS | | | | TRUCKS AND BUSES | | | | TOTAL MOTOR VEHICLES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1950 | Total | Domestic Market | Foreign Market | % Foreign | Total | Domestic Market | Foreign Market | % Foreign | Total | Domestic Market | Foreign Market | % Foreign |
| Jan. | 487,324 | 475,495 | 12,329 | 2.5 | 93,538 | 84,568 | 8,970 | 9.8 | 581,362 | 560,063 | 21,299 | 3.7 |
| Feb. | 385,361 | 377,185 | 8,176 | 2.1 | 90,104 | 81,067 | 9,037 | 10.0 | 475,465 | 458,252 | 17,213 | 3.6 |
| Mar. | 469,618 | 461,119 | 8,499 | 1.8 | 111,044 | 99,981 | 11,063 | 10.0 | 580,662 | 561,100 | 19,562 | 3.4 |
| Apr. | 455,192 | 446,524 | 8,669 | 1.9 | 104,118 | 93,528 | 10,590 | 10.2 | 559,311 | 540,052 | 19,259 | 3.4 |
| May | 575,518 | 563,119 | 12,399 | 2.1 | 121,375 | 109,320 | 12,055 | 9.9 | 696,893 | 672,439 | 24,454 | 3.5 |
| June | 720,688 | 702,925 | 17,763 | 2.5 | 135,927 | 120,582 | 15,345 | 11.3 | 856,615 | 823,507 | 33,098 | 3.9 |
| July | 595,067 | 581,069 | 13,998 | 2.3 | 111,035 | 98,594 | 12,741 | 11.4 | 706,702 | 679,963 | 26,739 | 3.8 |
| Aug. | 662,733 | 649,550 | 13,232 | 1.9 | 135,541 | 121,477 | 13,664 | 10.0 | 815,128 | 791,227 | 26,996 | 3.3 |
| Sept. | 616,827 | 602,423 | 14,404 | 2.3 | 106,015 | 93,723 | 12,292 | 11.6 | 722,842 | 696,146 | 26,696 | 3.7 |
| Oct. | 651,169 | 635,544 | 15,625 | 2.4 | 109,397 | 97,618 | 11,779 | 10.8 | 760,566 | 733,162 | 27,404 | 3.6 |
| Nov. | 504,445 | 490,855 | 13,590 | 2.7 | 99,122 | 81,339 | 17,783 | 17.9 | 603,567 | 572,194 | 31,373 | 5.2 |
| Dec. | 521,136 | 506,968 | 14,168 | 2.7 | 119,538 | 104,117 | 15,421 | 12.9 | 640,674 | 611,085 | 29,589 | 4.6 |
| Total | 6,665,628 | 6,512,786 | 152,842 | 2.3 | 1,337,154 | 1,186,414 | 150,740 | 11.3 | 8,002,782 | 7,699,200 | 303,582 | 3.8 |
| **1949** | | | | | | | | | | | | |
| Jan. | 326,859 | 312,199 | 14,660 | 4.5 | 105,595 | 91,900 | 13,695 | 13.0 | 432,454 | 404,099 | 28,355 | 6.6 |
| Feb. | 324,601 | 310,343 | 14,258 | 4.4 | 102,987 | 88,866 | 14,121 | 13.7 | 427,588 | 399,209 | 28,379 | 6.6 |
| Mar. | 403,388 | 385,834 | 17,554 | 4.3 | 116,273 | 100,348 | 15,925 | 13.7 | 519,661 | 486,182 | 33,479 | 6.4 |
| Apr. | 437,058 | 422,149 | 14,909 | 3.4 | 107,008 | 92,302 | 14,706 | 13.7 | 544,066 | 514,451 | 29,615 | 5.4 |
| May | 395,765 | 380,489 | 15,276 | 3.9 | 87,686 | 76,029 | 11,657 | 13.3 | 483,451 | 456,518 | 26,933 | 5.6 |
| June | 493,670 | 480,009 | 13,661 | 2.8 | 99,623 | 89,696 | 9,927 | 10.0 | 593,293 | 569,705 | 23,588 | 4.0 |
| July | 483,581 | 471,752 | 11,829 | 2.4 | 95,839 | 85,826 | 10,013 | 10.4 | 579,420 | 557,578 | 21,842 | 3.8 |
| Aug. | 557,624 | 544,630 | 12,994 | 2.3 | 100,796 | 90,409 | 10,387 | 10.3 | 658,420 | 635,039 | 23,381 | 3.5 |
| Sept. | 534,661 | 521,524 | 13,137 | 2.5 | 91,882 | 82,761 | 9,121 | 9.9 | 626,743 | 604,285 | 22,458 | 3.6 |
| Oct. | 488,176 | 476,461 | 11,715 | 2.4 | 85,523 | 76,859 | 8,664 | 10.1 | 573,699 | 553,320 | 20,379 | 3.6 |
| Nov. | 381,874 | 373,838 | 8,036 | 2.1 | 73,857 | 66,369 | 7,218 | 9.8 | 455,731 | 440,207 | 15,524 | 3.4 |
| Dec. | 292,009 | 284,097 | 7,912 | 2.7 | 67,067 | 61,137 | 5,930 | 8.8 | 359,076 | 345,234 | 13,842 | 3.8 |
| Total | 5,119,466 | 4,963,325 | 156,141 | 3.0 | 1,134,136 | 1,002,502 | 131,634 | 11.6 | 6,253,602 | 5,965,827 | 287,775 | 4.6 |
| **YEARLY TOTALS** | | | | | | | | | | | | |
| 1950 | 6,665,628 | 6,512,786 | 152,842 | 2.3 | 1,337,154 | 1,186,414 | 150,740 | 11.3 | 8,002,782 | 7,699,200 | 303,582 | 3.8 |
| 1949 | 5,119,466 | 4,963,325 | 156,141 | 3.0 | 1,134,136 | 1,002,502 | 131,634 | 11.6 | 6,253,602 | 5,965,827 | 287,775 | 4.6 |
| 1948 | 3,909,270 | 3,676,093 | 233,177 | 6.0 | 1,376,155 | 1,173,115 | 203,040 | 14.7 | 5,285,425 | 4,849,208 | 436,217 | 8.3 |
| 1947 | 3,558,178 | 3,297,331 | 260,847 | 7.3 | 1,239,744 | 988,255 | 251,489 | 20.3 | 4,797,922 | 4,285,589 | 512,333 | 10.7 |
| 1946 | 2,148,699 | 2,004,649 | 144,050 | 6.7 | 940,851 | 753,830 | 187,021 | 19.9 | 3,089,550 | 2,758,479 | 331,071 | 10.7 |
| 1945 | 69,532 | 68,093 | 1,439 | 2.1 | 291,469 | 254,039 | 37,430 | 12.8 | 361,001 | 322,132 | 38,869 | 10.7 |
| 1944 | 610 | 308 | 302 | 49.5 | 116,167 | 102,295 | 13,872 | 11.9 | 116,777 | 102,603 | 14,174 | 12.1 |
| 1943 | 139 | 121 | 18 | 12.9 | 24,843 | 23,420 | 1,422 | 5.7 | 24,981 | 23,541 | 1,440 | 5.8 |
| 1942 | 222,862 | 215,779 | 7,083 | 3.2 | 184,985 | 164,325 | 20,660 | 11.2 | 407,847 | 380,104 | 27,743 | 6.8 |
| 1941 | 3,779,682 | 3,681,558 | 98,124 | 2.6 | 854,719 | 743,932 | 110,787 | 13.0 | 4,634,401 | 4,425,490 | 208,911 | 4.7 |
| 1940 | 3,717,385 | 3,608,042 | 109,343 | 2.9 | 692,791 | 599,912 | 92,879 | 13.4 | 4,410,176 | 4,207,954 | 202,222 | 4.6 |

## Passenger Car Factory Sales by Body Types

Automobile Manufacturers Association

| Body Type | Units | % of Total |
|---|---|---|
| **1950** | | |
| 4-Door Sedans | 3,023,044 | 45.36 |
| 2-Door Sedans, Coaches, Coupes(1) | 2,631,039 | 39.47 |
| Business Coupes | 98,577 | 1.48 |
| "Hard top" Coupes and Sedans | 590,000 | 8.85 |
| Convertibles Except "Hard Top" | 206,000 | 3.09 |
| Station Wagons(2) | 104,862 | 1.57 |
| Chassis | 12,106 | .18 |
| Total | 6,665,628 | 100.00 |
| **1949** | | |
| 4-Door Sedans | 2,519,894 | 49.23 |
| 2-Door Sedans, Coaches, Coupes(1) | 2,192,825 | 42.83 |
| Business Coupes | 82,355 | 1.61 |
| "Hard Top" Coupes and Sedans | 10,431 | .20 |
| Convertibles (Except "Hard Top") | 215,635 | 4.21 |
| Station Wagons(2) | 88,410 | 1.73 |
| Chassis | 9,916 | .19 |
| Total | 5,119,466 | 100.00 |
| **1948** | | |
| 4-Door Sedans | 1,968,946 | 50.37 |
| 2-Door Sedans, Coaches, Coupes(1) | 1,554,687 | 39.77 |
| Business Coupes | 63,372 | 1.62 |
| "Hard Top" Coupes and Sedans | | |
| Convertibles Except "Hard Top") | 196,597 | 5.03 |
| Station Wagons(2) | 102,463 | 2.62 |
| Chassis | 23,205 | .59 |
| Total | 2,909,270 | 100.00 |
| **1947** | | |
| 4-Door Sedans | 1,745,100 | 49.04 |
| 2-Door Sedans, Coaches, Coupes(1) | 1,455,097 | 40.89 |
| Business Coupes | 82,944 | 2.33 |
| "Hard Top" Coupes and Sedans | | |
| Convertibles (Except "Hard Top") | 173,863 | 4.89 |
| Station Wagons(2) | 79,638 | 2.24 |
| Chassis | 21,536 | .61 |
| Total | 3,558,178 | 100.00 |

(1)—Does not include Business Coupes.
(2)—Includes only station wagons produced on passenger car chassis.

## Factory Sales of Special Types of Vehicles

Automobile Manufacturers Association

| Vehicle Type | Units |
|---|---|
| **1950** | |
| Station Wagons(1) | 123,028 |
| Motor Coaches(2) | 4,907 |
| School Bus Chassis | 19,952 |
| Trucks with Cab-Over-Engine | 22,370 |
| Trucks with Diesel Engines | 13,899 |
| Trucks with 6 Wheels, 3 Axles | 16,074 |
| Multi-Stop Trucks | 21,667 |
| Ambulances and Funeral Vehicles | 911 |
| **1949** | |
| Station Wagons(1) | 102,040 |
| Motor Coaches(2) | 5,511 |
| School Bus Chassis | 13,896 |
| Trucks with Cab-Over-Engine | 13,325 |
| Trucks with Diesel Engines | 6,047 |
| Trucks with 6 Wheels, 3 Axles | 4,122 |
| Multi-Stop Trucks | 19,479 |
| Ambulances and Funeral Vehicles | 2,853 |
| **1948** | |
| Station Wagons(1) | 110,312 |
| Motor Coaches(2) | 12,299 |
| School Bus Chassis | 23,755 |
| Trucks with Cab-Over-Engine | 31,047 |
| Trucks with Diesel Engines | 5,698 |
| Trucks with 6 Wheels, 3 Axles | 5,764 |
| Multi-Stop Trucks | 21,380 |
| Ambulances and Funeral Vehicles | 4,727 |
| **1947** | |
| Station Wagons(1) | 81,973 |
| Motor Coaches(2) | 19,110 |
| School Bus Chassis | 30,431 |
| Trucks with Cab-Over-Engine | 32,603 |
| Trucks with Diesel Engines | 6,209 |
| Trucks with 6 Wheels, 3 Axles | |
| Multi-Stop Trucks | 15,876 |
| Ambulances and Funeral Vehicles | 3,746 |

(1)—Includes those built on both passenger and truck chassis.
(2)—Does not include non-integral school buses.

## 1950 Motor Truck Factory Sales by Gross Vehicle Weights.

Automobile Manufacturers Association

### TOTAL MARKET

| G.V.W. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,000 lb. and less | 42,878 | 42,077 | 51,406 | 50,049 | 56,718 | 62,070 | 51,763 | 62,390 | 56,128 | 49,858 | 45,969 | 55,084 | 627,389 |
| 5,001-10,000 lb. | 20,926 | 18,638 | 22,380 | 20,421 | 24,003 | 26,555 | 22,928 | 26,261 | 16,441 | 27,227 | 17,736 | 22,524 | 266,043 |
| 10,001-14,000 lb. | 7,507 | 7,221 | 8,610 | 6,467 | 8,737 | 9,730 | 7,797 | 9,035 | 6,440 | 5,744 | 5,366 | 6,502 | 89,156 |
| 14,001-16,000 lb. | 15,396 | 14,720 | 18,264 | 17,047 | 19,937 | 23,519 | 16,841 | 22,009 | 17,082 | 16,348 | 17,814 | 20,940 | 219,918 |
| 16,001-19,500 lb. | 3,025 | 3,176 | 4,154 | 3,829 | 5,028 | 5,528 | 5,141 | 6,305 | 3,567 | 3,565 | 4,694 | 5,473 | 53,484 |
| 19,501-26,000 lb. | 2,030 | 2,486 | 3,561 | 3,645 | 4,020 | 3,964 | 3,964 | 5,878 | 3,740 | 3,971 | 4,297 | 5,166 | 47,022 |
| Over 26,000 lb. | 1,557 | 1,653 | 2,170 | 2,393 | 2,530 | 2,963 | 2,804 | 3,006 | 2,190 | 2,131 | 2,662 | 3,186 | 29,235 |
| Total | 93,319 | 89,971 | 110,845 | 103,850 | 120,963 | 135,329 | 111,238 | 134,884 | 105,592 | 108,844 | 98,538 | 118,874 | 1,332,247 |

### U. S. DOMESTIC MARKET

| G.V.W. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,000 lb. and less | 39,252 | 39,629 | 47,828 | 46,375 | 52,805 | 58,892 | 47,590 | 58,084 | 51,888 | 46,700 | 40,572 | 50,139 | 579,754 |
| 5,001-10,000 lb. | 19,251 | 17,151 | 20,921 | 19,025 | 21,885 | 24,249 | 20,991 | 24,223 | 15,082 | 24,932 | 15,669 | 20,551 | 243,930 |
| 10,001-14,000 lb. | 6,804 | 6,032 | 7,200 | 5,884 | 7,468 | 8,158 | 6,550 | 7,674 | 5,476 | 5,020 | 4,198 | 5,529 | 75,993 |
| 14,001-16,000 lb. | 13,093 | 11,739 | 14,644 | 12,956 | 16,705 | 18,461 | 13,426 | 18,347 | 12,838 | 12,045 | 10,151 | 15,544 | 169,949 |
| 16,001-19,500 lb. | 2,680 | 2,729 | 3,580 | 3,406 | 4,093 | 4,131 | 3,843 | 4,820 | 2,660 | 2,729 | 3,760 | 4,134 | 42,756 |
| 19,501-26,000 lb. | 1,816 | 2,157 | 3,474 | 3,322 | 3,598 | 3,507 | 3,489 | 5,163 | 3,314 | 3,728 | 3,976 | 4,600 | 42,144 |
| Over 26,000 lb. | 1,478 | 1,511 | 2,064 | 2,326 | 2,393 | 2,835 | 2,714 | 2,892 | 2,120 | 1,962 | 2,506 | 3,019 | 27,820 |
| Total | 84,374 | 80,939 | 99,811 | 93,294 | 108,997 | 120,233 | 98,603 | 121,203 | 93,378 | 97,116 | 80,832 | 103,516 | 1,182,396 |

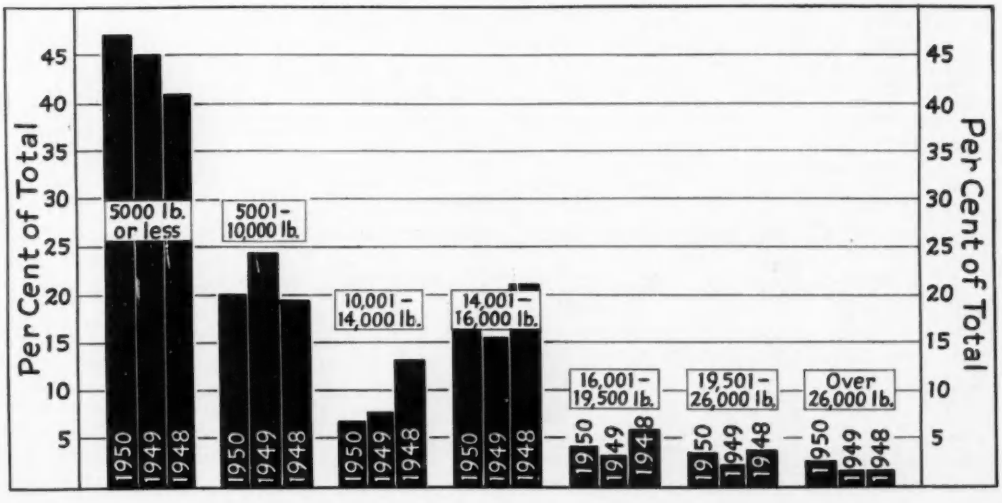
### FOREIGN MARKET

| G.V.W. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,000 lb. and less | 3,626 | 2,448 | 3,578 | 3,673 | 3,913 | 4,178 | 4,173 | 4,306 | 4,240 | 3,158 | 5,397 | 4,945 | 47,635 |
| 5,001-10,000 lb. | 1,675 | 1,487 | 1,459 | 1,396 | 2,068 | 2,306 | 1,937 | 2,038 | 1,362 | 2,295 | 2,067 | 1,973 | 22,063 |
| 10,001-14,000 lb. | 703 | 1,189 | 1,410 | 583 | 1,269 | 1,572 | 1,247 | 1,361 | 964 | 724 | 1,168 | 973 | 13,163 |
| 14,001-16,000 lb. | 2,303 | 2,981 | 3,620 | 4,091 | 3,233 | 5,058 | 3,415 | 3,662 | 4,245 | 4,303 | 7,663 | 5,396 | 49,969 |
| 16,001-19,500 lb. | 345 | 447 | 574 | 423 | 935 | 1,397 | 1,298 | 1,385 | 907 | 836 | 934 | 1,328 | 10,728 |
| 19,501-26,000 lb. | 214 | 329 | 387 | 323 | 422 | 457 | 475 | 715 | 426 | 243 | 321 | 566 | 4,878 |
| Over 26,000 lb. | 79 | 142 | 106 | 67 | 127 | 128 | 90 | 114 | 70 | 169 | 156 | 167 | 1,415 |
| Total | 8,945 | 9,032 | 11,034 | 10,556 | 11,966 | 15,096 | 12,635 | 13,581 | 12,214 | 11,728 | 11,706 | 15,358 | 149,851 |

## Motor Truck Factory Sales By G.V.W., 1946-1950

| | 5,000 lb. & Less | | 5,001-10,000 lb. | | 10,001-14,000 lb. | | 14,001-16,000 lb. | | 16,001-19,500 lb. | | 19,501-26,000 lb. | | Over 26,000 lb. | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Units | % of Total | Units | % of Total | Units | % of Total | Units | % of Total | Units | % of Total | Units | % of Total | Units | % of Total | Units | % of Total |
| 1950 | 627,389 | 47.1 | 266,043 | 20.0 | 89,156 | 6.7 | 219,918 | 16.5 | 53,484 | 4.0 | 47,022 | 3.5 | 29,235 | 2.2 | 1,332,247 | 100 |
| 1949 | 513,148 | 45.5 | 279,359 | 24.8 | 84,605 | 7.5 | 173,137 | 15.3 | 37,227 | 3.3 | 23,798 | 2.1 | 17,351 | 1.5 | 1,128,625 | 100 |
| 1948 | 485,083 | 35.6 | 267,720 | 19.6 | 182,500 | 13.4 | 280,535 | 20.6 | 76,711 | 5.6 | 50,023 | 3.7 | 21,279 | 1.5 | 1,363,856 | 100 |
| 1947 | 375,445 | 30.8 | 182,490 | 14.9 | 265,989 | 21.8 | 285,589 | 23.4 | 41,606 | 3.4 | 42,761 | 3.5 | 26,754 | 2.2 | 1,220,634 | 100 |
| 1946 | 330,730 | 35.5 | 88,235 | 9.5 | 247,912 | 26.6 | 200,574 | 21.6 | 24,162 | 2.6 | 25,252 | 2.7 | 13,874 | 1.5 | 930,739 | 100 |

## 74% OF 1950 TRUCK SALES WERE UNDER 14,001 LBS. G.V.W.



# BUSES • TRAILERS

## Revenue Motor Bus Factory Sales

### From Plants Located in the United States

| Month | 1950 | 1949 | 1948 | 1947 | 1946 | 1944 | 1943 | 1942 | 1941 | 1940 |
|---|---|---|---|---|---|---|---|---|---|---|
| January | 219 | 658 | 1,382 | 1,273 | 447 | 231 | 227 | 901 | 430 | 467 |
| February | 133 | 418 | 1,101 | 1,303 | 285 | 245 | 226 | 828 | 456 | 454 |
| March | 199 | 545 | 1,430 | 1,421 | 527 | 336 | 102 | 929 | 662 | 405 |
| April | 268 | 514 | 1,056 | 1,650 | 948 | 352 | 76 | 875 | 603 | 338 |
| May | 412 | 564 | 1,288 | 1,853 | 789 | 367 | 33 | 938 | 701 | 531 |
| June | 598 | 632 | 1,065 | 1,628 | 774 | 293 | 54 | 875 | 609 | 458 |
| July | 397 | 439 | 1,012 | 1,806 | 862 | 381 | 15 | 879 | 650 | 406 |
| August | 457 | 444 | 771 | 1,765 | 1,067 | 470 | 48 | 263 | 627 | 686 |
| September | 423 | 298 | 1,143 | 1,607 | 833 | 562 | 142 | 557 | 748 | 402 |
| October | 553 | 322 | 679 | 1,667 | 975 | 594 | 162 | 376 | 615 | 685 |
| November | 584 | 308 | 545 | 1,416 | 1,146 | 484 | 199 | 419 | 573 | 591 |
| December | 664 | 369 | 824 | 1,721 | 1,438 | 1,483 | 326 | 497 | 952 | 721 |
| Total | 4,907 | 5,511 | 12,299 | 19,110 | 10,091 | 5,799 | 1,613 | 8,337 | 7,626 | 6,147 |

Source: Automobile Manufacturers Association.

## Motor Bus Factory Sales—by Type of Bus*

### Does Not Include Non-Integral School Buses

| | City Coaches | | | Intercity Coaches | | | Special Coaches† | | | Total All Coaches | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Domestic | Foreign | Total | Domestic | Foreign | Total | Domestic | Foreign | Total | Domestic | Foreign | Total |
| 1946 | 6,842 | 699 | 7,541 | 2,276 | 107 | 2,383 | 159 | 7 | 166 | 9,277 | 813 | 10,090 |
| 1947 | 11,799 | 1,821 | 13,620 | 3,451 | 500 | 3,951 | 1,466 | 139 | 1,539 | 16,650 | 2,460 | 19,110 |
| 1948 | 6,971 | 1,267 | 8,238 | 2,558 | 468 | 3,026 | 997 | 37 | 1,035 | 10,526 | 1,773 | 12,299 |
| 1949 | 3,402 | 398 | 3,800 | 690 | 165 | 855 | 802 | 54 | 856 | 4,894 | 617 | 5,511 |
| 1950 | .. | .. | 3,462 | .. | .. | 759 | .. | .. | 686 | .. | .. | 4,907 |

* Automobile Manufacturers Association. † Includes Integral School Buses.

## Truck Trailer Shipments, by Type*

| Type of Trailer | 1950† | 1949 | 1948 | 1947 |
|---|---|---|---|---|
| Vans | | | | |
| Insulated and refrigerated | 3,547 | 2,756 | 2,724 | 2,474 |
| All other closed top | 28,103 | 14,623 | 18,968 | 20,690 |
| Open top | 3,547 | 1,620 | 2,023 | 1,759 |
| Total—Vans | 35,197 | 18,999 | 23,715 | 24,833 |
| Platforms | | | | |
| With cattle and stake racks | 1,512 | 1,094 | 1,949 | 3,404 |
| With grain bodies | 618 | 502 | 895 | 1,167 |
| All other | 8,282 | 4,873 | 6,566 | 7,932 |
| Total—Platforms | 10,413 | 6,469 | 9,210 | 12,503 |
| Tanks | | | | |
| Petroleum | 3,478 | 2,008 | 3,042 | 3,386 |
| Other | 198 | 166 | 378 | 416 |
| Total—Tanks | 3,676 | 2,174 | 3,420 | 3,802 |
| Pole and Logging | | | | |
| Single axle | 1,310 | 681 | 2,184 | 3,696 |
| Tandem axle | 1,064 | 628 | 1,718 | 1,624 |
| Total—Pole | 2,374 | 1,309 | 3,902 | 5,320 |
| Low-bed heavy haulers | 1,617 | 1,433 | 1,834 | 2,417 |
| Dump trailers | 770 | 522 | 654 | 797 |
| All other trailers | 3,019 | 1,841 | 2,142 | 2,399 |
| Total—Trailers | 57,066 | 32,747 | 44,877 | 52,071 |
| Trailer chassis | 2,164 | 1,526 | 2,083 | 3,301 |
| Total—Trailers and chassis | 59,230† | 34,273 | 46,960 | 55,372 |

* Industry Division, Bureau of the Census. † Eleven months only.

## Truck Trailer Shipments by Months

### In Units and Their Value.

| 1950 | Shipments | Value |
|---|---|---|
| January | 3,151 | $10,822,000 |
| February | 3,551 | 12,321,000 |
| March | 4,485 | 15,338,000 |
| April | 4,487 | 15,328,000 |
| May | 4,982 | 17,127,000 |
| June | 5,614 | 18,684,000 |
| July | 6,173 | 21,079,000 |
| August | 7,210 | 24,630,000 |
| September | 6,793 | 23,150,000 |
| October | 6,657 | 23,991,000 |
| November | 6,376 | 23,006,000 |
| December | .. | .. |
| Total* | 59,479 | $205,536,000 |

| 1949 | Shipments | Value |
|---|---|---|
| January | 2,603 | $9,110,000 |
| February | 2,411 | 8,175,000 |
| March | 2,864 | 10,054,000 |
| April | 2,921 | 10,133,000 |
| May | 2,583 | 9,157,000 |
| June | 2,747 | 9,500,000 |
| July | 2,178 | 7,917,000 |
| August | 2,655 | 9,469,000 |
| September | 3,119 | 11,068,000 |
| October | 3,709 | 12,867,000 |
| November | 3,274 | 11,589,000 |
| December | 3,209 | 10,059,000 |
| Total | 34,273 | $119,098,000 |

* Eleven months.

## Civilian and Military Truck Trailer Production, 1942-1945*

| | 1942 | | | 1943 | | | 1944 | | | 1945 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Civilian | Military | Total | Civilian | Military | Total | Civilian | Military | Total | Civilian | Military | Total |
| January | 1,387 | 2,023 | 3,410 | 556 | 11,785 | 12,341 | 765 | 32,316 | 33,081 | 2,861 | 12,568 | 15,429 |
| February | 946 | 1,738 | 2,684 | 925 | 8,767 | 9,692 | 1,035 | 30,718 | 31,753 | 2,251 | 13,314 | 15,565 |
| March | 1,245 | 2,197 | 3,442 | 430 | 10,915 | 11,345 | 802 | 25,997 | 26,799 | 2,151 | 14,330 | 16,481 |
| April | 936 | 3,221 | 4,157 | 567 | 11,471 | 12,038 | 1,124 | 12,886 | 14,010 | 1,997 | 13,629 | 15,626 |
| May | 1,151 | 4,385 | 5,536 | 611 | 10,487 | 11,098 | 2,592 | 12,089 | 14,681 | 1,854 | 15,084 | 16,938 |
| June | 1,318 | 4,814 | 6,132 | 1,267 | 14,941 | 16,208 | 1,750 | 9,698 | 11,448 | 2,735 | 15,042 | 17,777 |
| July | 411 | 4,741 | 5,152 | 698 | 16,866 | 17,564 | 1,624 | 7,162 | 8,786 | 2,422 | n.a. | 2,422 |
| August | 294 | 8,861 | 9,155 | 792 | 16,772 | 17,564 | 1,397 | 9,046 | 10,443 | 2,565 | n.a. | 2,565 |
| September | 227 | 10,614 | 10,841 | 477 | 19,811 | 20,288 | 4,447 | 9,591 | 14,038 | 2,984 | n.a. | 2,984 |
| October | 259 | 8,170 | 8,429 | 420 | 21,456 | 21,876 | 3,185 | 11,445 | 14,630 | 3,803 | n.a. | 3,803 |
| November | 138 | 10,045 | 10,183 | 518 | 22,264 | 22,782 | 2,523 | 11,540 | 14,063 | 3,873 | n.a. | 3,873 |
| December | 96 | 10,711 | 10,807 | 793 | 23,276 | 24,069 | 2,848 | 12,861 | 15,709 | 3,770 | n.a. | 3,770 |
| Total | 8,408 | 71,520 | 79,928 | 8,054 | 188,811 | 196,865 | 24,092 | 185,349 | 209,441 | 33,266 | 83,967‡ | 117,233 |

* As reported by the War Production Board. n.a.—Not available. ‡ Six months total.

# TRACTORS

## Farm and Non-Farm Tractor Shipments, 1940-1949

In Units and Their Wholesale Value

| Year | TOTAL SHIPMENTS Number | Value (Add 000) | Average Value per Tractor | FOR DOMESTIC USE Number | Value (Add 000) | Average Value per Tractor | FOR EXPORT Number | Value (Add 000) | Average Value per Tractor |
|---|---|---|---|---|---|---|---|---|---|
| **TOTAL—ALL TYPES** | | | | | | | | | |
| 1949 | 720,462 | $782,947 | .... | 599,548 | $598,932 | .... | 120,914 | $184,015 | .... |
| 1948 | 738,686 | 689,357 | .... | 625,413 | 549,290 | .... | 113,273 | 140,067 | .... |
| 1947 | 638,451 | 516,815 | .... | 539,312 | 410,026 | .... | 99,139 | 106,789 | .... |
| 1946 | 396,844 | 299,132 | .... | 336,073 | 238,462 | .... | 60,771 | 60,670 | .... |
| 1945 | 315,652 | 384,496 | .... | 252,086 | 329,171 | .... | 63,566 | 55,325 | .... |
| 1944 | 311,994 | 432,985 | .... | 263,594 | 395,445 | .... | 48,400 | 37,540 | .... |
| 1943 | 144,129 | 206,822 | .... | 120,233 | 186,059 | .... | 23,896 | 20,763 | .... |
| 1942 | 227,304 | 213,850 | .... | 197,426 | 184,361 | .... | 29,878 | 29,489 | .... |
| 1941 | 370,702 | 273,890 | .... | 323,918 | 228,145 | .... | 46,784 | 45,745 | .... |
| 1940 | 284,430 | 196,776 | .... | 240,694 | 156,065 | .... | 43,736 | 40,711 | .... |
| **WHEEL TYPE** | | | | | | | | | |
| 1949 | 548,205 | $563,285 | $1,027 | 447,970 | $450,405 | $1,005 | 100,235 | $112,877 | $1,126 |
| 1948 | 529,692 | 497,298 | 939 | 436,954 | 399,822 | 915 | 92,708 | 97,476 | 1,051 |
| 1947 | 428,665 | 349,334 | 815 | 352,443 | 280,867 | 797 | 76,222 | 68,467 | 898 |
| 1946 | 255,338 | 192,272 | 753 | 206,951 | 153,894 | 744 | 48,387 | 38,378 | 793 |
| 1945 | 243,692 | 163,896 | 673 | 186,281 | 126,357 | 678 | 57,411 | 42,539 | 741 |
| 1944 | 249,955 | 170,113 | 680 | 205,897 | 137,715 | 669 | 44,058 | 32,398 | 735 |
| 1943 | 103,867 | 63,217 | 609 | 82,576 | 49,357 | 598 | 21,291 | 13,860 | 651 |
| 1942 | 185,677 | 111,618 | 601 | 161,668 | 95,974 | 594 | 24,009 | 15,644 | 651 |
| 1941 | 324,062 | 191,129 | 590 | 286,858 | 166,905 | 582 | 37,204 | 24,224 | 651 |
| 1940 | 249,921 | 137,179 | 549 | 215,701 | 115,956 | 537 | 34,220 | 21,223 | 620 |
| **TRACKLAYING TYPE** | | | | | | | | | |
| 1949 | 43,849 | $199,423 | $4,548 | 28,260 | $129,235 | $4,573 | 15,589 | $70,188 | $4,502 |
| 1948 | 39,573 | 162,007 | 4,094 | 29,564 | 121,382 | 4,106 | 10,009 | 40,625 | 4,059 |
| 1947 | 37,534 | 134,330 | 3,579 | 27,885 | 99,164 | 3,556 | 9,649 | 35,166 | 3,644 |
| 1946 | 26,265 | 82,934 | 3,160 | 19,943 | 62,402 | 3,129 | 6,322 | 20,532 | 3,248 |
| 1945 | 43,998 | 212,008 | 4,818 | 39,404 | 199,461 | 5,062 | 4,594 | 12,547 | 2,731 |
| 1944 | 45,187 | 260,583 | 5,766 | 42,808 | 255,772 | 5,975 | 2,379 | 4,811 | 2,022 |
| 1943 | 30,652 | 142,194 | 4,639 | 28,533 | 135,365 | 4,744 | 2,119 | 6,829 | 3,223 |
| 1942 | 28,644 | 100,370 | 3,504 | 23,265 | 86,616 | 3,723 | 5,379 | 13,754 | 2,557 |
| 1941 | 29,744 | 80,064 | 2,692 | 20,942 | 59,170 | 2,825 | 8,802 | 20,894 | 2,374 |
| 1940 | 25,110 | 60,285 | 2,400 | 16,177 | 40,872 | 2,526 | 8,933 | 19,413 | 2,173 |
| **GARDEN TYPE** | | | | | | | | | |
| 1949 | 128,408 | $20,239 | $158 | 123,318 | $19,289 | $156 | 5,090 | $950 | $187 |
| 1948 | 169,421 | 30,052 | 177 | 158,865 | 28,086 | 177 | 10,556 | 1,966 | 186 |
| 1947 | 172,252 | 33,151 | 192 | 158,984 | 29,995 | 189 | 13,268 | 3,156 | 238 |
| 1946 | 115,241 | 23,926 | 208 | 109,179 | 22,166 | 203 | 6,062 | 1,760 | 290 |
| 1945 | 27,962 | 3,592 | 128 | 26,401 | 3,353 | 127 | 1,561 | 239 | 153 |
| 1944 | 16,852 | 2,289 | 136 | 14,889 | 1,958 | 131 | 1,963 | 331 | 169 |
| 1943 | 9,610 | 1,411 | 147 | 9,124 | 1,337 | 146 | 486 | 74 | 152 |
| 1942 | 12,983 | 1,862 | 143 | 12,493 | 1,771 | 142 | 490 | 91 | 186 |
| 1941 | 16,896 | 2,197 | 130 | 16,118 | 2,070 | 128 | 778 | 127 | 163 |
| 1940 | 9,399 | 1,312 | 140 | 8,816 | 1,237 | 140 | 583 | 75 | 129 |

*Industry Division, Bureau of the Census.

## 1949 Tractor Shipments by Type and Hp Ratings*

In Units and Their Wholesale Value

| Type and Hp. | Number of Manufacturers | TOTAL Number | TOTAL Value (Add 000) | DOMESTIC Farm Use Number | DOMESTIC Farm Use Value (Add 000) | DOMESTIC Non-farm Use Number | DOMESTIC Non-farm Use Value (Add 000) | EXPORT Number | EXPORT Value (Add 000) |
|---|---|---|---|---|---|---|---|---|---|
| Wheel Type | | | | | | | | | |
| All-purpose | | | | | | | | | |
| 8 and under 15 belt hp | 10 | 59,886 | $26,795 | 52,417 | $23,943 | (1) | (1) | 6,469 | $2,852 |
| 15 and under 20 belt hp | 6 | 58,467 | 45,619 | 51,257 | 40,223 | (1) | (1) | 7,210 | 5,396 |
| 20 and under 25 belt hp | 11 | 194,164 | 171,218 | 167,739 | 148,721 | (1) | (1) | 26,425 | 22,497 |
| 25 and under 30 belt hp | 15 | 60,749 | 75,419 | 54,235 | 67,611 | (1) | (1) | 6,514 | 7,808 |
| 30 and under 35 belt hp | 9 | 69,347 | 86,929 | 63,270 | 78,746 | ..... | ..... | 6,077 | 8,183 |
| 35 belt hp and over | 12 | 27,071 | 36,568 | 24,803 | 33,697 | ..... | ..... | 2,268 | 2,871 |
| Other | | | | | | | | | |
| 8 and under 25 belt hp | 8 | 10,361 | 9,476 | 2,307 | 2,119 | 2,866 | $2,561 | 5,290 | 4,796 |
| 25 and under 30 belt hp | 9 | 10,261 | 10,585 | 1,207 | 1,356 | 915 | 1,390 | 8,139 | 8,239 |
| 30 and under 35 belt hp | 6 | 12,254 | 16,488 | 3,238 | 4,881 | 1,603 | 2,562 | 7,413 | 9,345 |
| 35 and under 45 belt hp | 9 | 34,858 | 57,123 | 15,052 | 25,941 | 1,004 | 2,016 | 18,802 | 29,166 |
| 45 belt hp and over | 6 | 11,787 | 26,665 | 5,139 | 9,964 | 1,020 | 4,977 | 5,628 | 11,724 |
| Total—Wheel Type | 44 | 548,205 | $563,285 | 439,639 | $435,936 | 8,340 | $14,472 | 100,235 | $112,877 |
| Tracklaying Type | | | | | | | | | |
| Under 35 drawbar hp | 10 | 13,022 | 25,717 | 6,174 | 10,843 | 2,249 | 4,839 | 4,599 | 10,035 |
| 35-49 drawbar hp | 4 | 13,535 | 49,834 | 3,700 | 12,804 | 4,755 | 18,912 | 5,080 | 18,118 |
| 50-69 drawbar hp | 4 | 7,603 | 39,938 | 1,678 | 8,987 | 3,200 | 16,869 | 2,725 | 14,082 |
| 70-94 drawbar hp | 3 | 5,571 | 39,552 | 615 | 4,818 | 5,899 | 51,163 | 3,185 | 27,953 |
| 95 drawbar hp and over | 4 | 4,118 | 44,382 | | | | | | |
| Total—Tracklaying Type | 11 | 43,849 | $199,423 | 12,167 | $37,452 | 16,093 | $91,783 | 15,589 | $70,188 |
| Garden Tractors | 89 | 128,408 | 20,239 | 123,318 | 19,289 | ..... | ..... | 5,090 | 950 |
| Total—All Tractors | 135 | 720,462 | $782,947 | $75,115 | $492,677 | 24,433 | $106,255 | 120,914 | $184,015 |

(1) Withheld to avoid disclosing figures of individual companies. *Industry Division, Bureau of the Census

# PRODUCTION

## World Motor Vehicle Production, 1949-1950

Courtesy of The American Automobile (Overseas Edition)

| Country | 1950 Passenger Cars | 1950 Trucks | 1950 Buses | 1950 Total Vehicles | 1949 Passenger Cars | 1949 Trucks | 1949 Buses | 1949 Total Vehicles |
|---|---|---|---|---|---|---|---|---|
| United States | 6,665,628 | 1,333,247 | 4,907 | 8,003,782 | 5,119,466 | 1,128,625 | 5,511 | 6,253,602 |
| Canada | 284,797 | 105,418 | 621 | 390,836 | 193,556 | 98,303 | 725 | 292,584 |
| Subtotal | 6,950,425 | 1,437,665 | 5,528 | 8,393,618 | 5,313,022 | 1,226,928 | 6,236 | 6,546,186 |
| Australia | 20,158 | .... | .... | 20,158 | 7,881 | .... | .... | 7,881 |
| Austria | .... | .... | .... | .... | 33 | 1,600 | 615 | 2,248 |
| Belgium | .... | 300 | .... | 300 | .... | 200 | † | 200 |
| Czechoslovakia | .... | .... | .... | 20,000 | 20,839 | 6,333 | † | 27,172 |
| Denmark | .... | .... | .... | .... | .... | .... | .... | .... |
| Finland | .... | 500 | † | 500 | .... | 160 | 170 | 330 |
| France | 257,292 | 97,981 | 2,279 | 357,552 | 187,677 | 94,978 | 2,088 | 284,743 |
| Germany, West | 219,405 | 82,876 | 3,812 | 306,093 | 103,998 | 56,736 | 2,789 | 163,523 |
| Hungary | .... | 1,600 | 300 | 1,900 | .... | .... | .... | .... |
| Italy | 101,310 | 23,557 | 2,980 | 127,847 | 79,128 | 4,953 | 1,973 | 86,054 |
| Japan | 1,594 | 26,501 | 3,503 | 31,598 | 2,284 | 25,873 | 2,143 | 30,300 |
| Netherlands | .... | 1,169 | 89 | 1,258 | 2,530 | 683 | 95 | 3,308 |
| Spain | 75 | 360 | .... | 435 | 390 | 96 | † | 486 |
| Sweden | 10,000 | 6,500 | 1,500 | 18,000 | 5,441 | 4,371 | 1,357 | 11,069 |
| Switzerland | .... | 750 | † | 750 | .... | 433 | 283 | 716 |
| United Kingdom | 522,515 | 262,702 | † | 785,217 | 412,290 | 218,375 | † | 630,665 |
| U. S. S. R. | 65,600 | 351,000 | 6,400 | 423,000 | .... | .... | .... | 375,000 |
| Subtotal | 1,197,949 | 855,796 | 20,863 | 2,094,608 | 822,491 | 414,791 | 11,513 | 1,623,695 |
| World Total | 8,148,374 | 2,293,461 | 26,391 | 10,488,226 | 6,135,513 | 1,641,719 | 17,749 | 8,169,881 |

† Included with trucks.

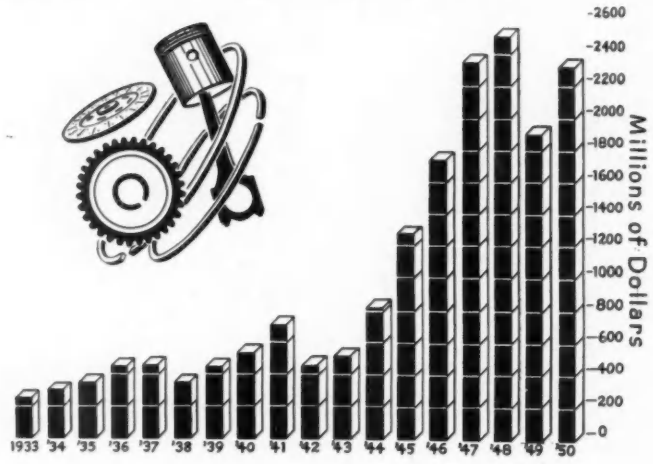
## Factory Sales of Replacement Parts and Accessories

### Wholesale Value of Repair Parts and Accessories Sales, 1934-1950

| Year | Wholesale Value |
|---|---|
| 1933 | $234,461,000 |
| 1934 | 304,642,000 |
| 1935 | 378,323,000 |
| 1936 | 448,527,000 |
| 1937 | 464,619,000 |
| 1938 | 348,068,000 |
| 1939 | 454,673,000 |
| 1940 | 553,004,000 |
| 1941 | 718,212,000 |
| 1942 | 471,957,000 |
| 1943 | 527,710,000 |
| 1944 | 816,724,000 |
| 1945 | 1,284,926,000 |
| 1946 | 1,752,918,000 |
| 1947 | 2,353,523,000 |
| 1948 | 2,552,871,760 |
| 1949 | 1,895,050,000 |
| 1950* | 2,128,000,000 |

* Partialy estimated.

The above data are based on Federal Excise tax collection. The excise tax does not apply on parts and accessories exported, so these values apply for domestic sales only. Prior to July 1, 1944, sales to U. S. Government were not subject to the tax, but have been since that date.




## Monthly Sales of Replacement Parts and Accessories in the U. S., 1944-1950*

| Month | 1950 | 1949 | 1948 | 1947 | 1946 | 1945 | 1944 |
|---|---|---|---|---|---|---|---|
| January | $131,228,100 | $197,167,600 | $185,849,230 | $181,118,000 | $127,253,760 | $93,602,000 | $62,659,440 |
| February | 134,924,200 | 173,658,000 | 203,993,600 | 201,061,400 | 131,824,160 | 89,529,120 | 57,592,720 |
| March | 153,961,600 | 167,357,800 | 218,980,200 | 194,672,170 | 141,749,200 | 115,270,200 | 67,048,380 |
| April | 169,639,200 | 171,985,910 | 251,843,500 | 178,323,680 | 108,620,100 | 118,461,980 | 57,611,860 |
| May | 179,073,380 | 157,077,540 | 192,566,150 | 212,623,100 | 146,114,660 | 118,178,100 | 57,996,540 |
| June | 187,856,650 | 172,172,250 | 254,362,900 | 175,730,820 | 130,410,900 | 129,543,740 | 73,864,560 |
| July | 172,624,700 | 137,159,760 | 213,983,500 | 184,101,360 | 118,871,160 | 91,432,760 | 74,502,800 |
| August | 224,998,400 | 167,084,340 | 244,890,700 | 256,863,200 | 175,002,680 | 123,951,240 | 70,657,740 |
| September | 213,786,700 | 153,414,420 | 202,219,700 | 198,352,320 | 145,876,740 | 101,457,320 | 66,556,540 |
| October | 210,208,900 | 153,741,740 | 268,940,400 | 227,763,200 | 195,721,800 | 99,932,480 | 83,610,340 |
| November | 171,820,740 | 136,165,540 | 156,790,680 | 254,845,160 | 150,221,320 | 97,885,600 | 58,517,320 |
| December | .... | 108,085,200 | 158,451,200 | 88,095,260 | 181,251,720 | 105,581,660 | 81,126,240 |
| Total | $2,128,000,000† | $1,895,050,100 | $2,552,871,760 | $2,353,523,120 | $1,752,918,200 | $1,284,926,200 | $816,723,980 |

* As there is approximately a two months' lag between the month in which sales are made and the month in which collections are normally reported, the estimated sales volumes, recorded above are based on the monthly collections commencing March 1st. †Partially estimated.

# CANADIAN STATISTICS

From Canadian Automobile Chamber of Commerce

## Motor Vehicle Production in Canada

In Units and Their Value

| Year | PASSENGER CARS | | | TRUCKS AND BUSES | | | TOTAL | |
|---|---|---|---|---|---|---|---|---|
| | Number of Units† | Wholesale Value | Average Wholesale Value | Number of Units† | Wholesale Value | Average Wholesale Value | Number of Units | Wholesale Value |
| 1925 | 135,573 | $86,158,773 | $635 | 26,397 | $12,234,486 | $463 | 161,970 | $98,393,259 |
| 1926 | 166,887 | 106,000,203 | 635 | 37,840 | 16,629,334 | 439 | 204,727 | 122,629,537 |
| 1927 | 146,421 | 100,962,211 | 689 | 32,633 | 14,942,017 | 458 | 179,054 | 115,904,228 |
| 1928 | 197,848 | 127,263,877 | 643 | 44,206 | 21,913,122 | 496 | 242,054 | 149,176,999 |
| 1929 | 203,307 | 134,023,280 | 659 | 59,318 | 29,474,395 | 497 | 262,625 | 163,497,675 |
| 1930 | 121,337 | 75,253,581 | 620 | 32,035 | 16,513,225 | 515 | 153,372 | 91,766,806 |
| 1931 | 65,072 | 42,634,173 | 655 | 17,487 | 10,330,763 | 591 | 82,559 | 52,964,936 |
| 1932 | 50,694 | 32,490,129 | 641 | 10,095 | 6,070,667 | 601 | 60,789 | 38,560,796 |
| 1933 | 53,849 | 32,568,268 | 605 | 12,003 | 6,062,195 | 505 | 65,852 | 38,630,463 |
| 1934 | 92,647 | 57,260,156 | 618 | 24,205 | 12,770,318 | 528 | 116,852 | 70,030,474 |
| 1935 | 135,562 | 79,209,276 | 584 | 37,315 | 19,803,771 | 531 | 172,877 | 99,013,047 |
| 1936 | 128,369 | 76,814,258 | 598 | 33,790 | 19,140,946 | 566 | 162,159 | 95,955,204 |
| 1937 | 153,046 | 93,368,282 | 610 | 54,417 | 30,389,011 | 558 | 207,463 | 123,757,293 |
| 1938 | 123,761 | 81,661,687 | 660 | 42,325 | 26,497,038 | 626 | 166,086 | 108,158,725 |
| 1939 | 108,369 | 71,101,204 | 656 | 47,057 | 28,072,712 | 597 | 155,426 | 99,173,916 |
| 1940 | 109,911 | 83,544,445 | 760 | 113,102 | 91,191,516 | 806 | 223,013 | 174,735,961 |
| 1941 | 96,603 | 81,167,694 | 840 | 173,588 | 163,414,253 | 941 | 270,191 | 244,581,947 |
| 1942 | 12,236 | 10,305,013 | 842 | 216,057 | 229,103,128 | 1,060 | 228,293 | 239,408,741 |
| 1943 | ..... | ..... | .... | 178,064 | 222,393,092 | 1,249 | 178,064 | 222,393,092 |
| 1944 | ..... | ..... | .... | 158,038 | 213,259,582 | 1,349 | 158,038 | 213,259,582 |
| 1945 | 1,868 | 1,638,118 | 877 | 130,777 | 167,103,012 | 1,278 | 132,645 | 168,741,130 |
| 1946 | 91,871 | 82,847,330 | 902 | 79,657 | 81,204,338 | 1,019 | 171,528 | 164,051,668 |
| 1947 | 167,257 | 182,161,183 | 1,089 | 90,758 | 116,357,486 | 1,282 | 258,015 | 298,518,669 |
| 1948 | 166,819 | 210,799,512 | 1,264 | 96,941 | 137,228,722 | 1,415 | 263,760 | 348,028,234 |
| 1949 | 193,556 | 277,660,998 | 1,434 | 99,028 | 146,697,354 | 1,481 | 292,584 | 424,358,352 |
| 1950 | 287,768 | ..... | .... | 107,767 | ..... | .... | 395,535 | ..... |

† Production figures include all wheeled vehicles for military use. Universal carriers and scout cars are not included.

## Canadian Motor Vehicle Production—by Months*

| | 1950† | 1949 | 1948 | 1947 | 1946 | 1945 | 1944 | 1943 |
|---|---|---|---|---|---|---|---|---|
| January | 29,014 | 13,863 | 16,715 | 18,700 | 8,495 | 13,745 | 13,072 | 16,341 |
| February | 30,432 | 17,197 | 16,382 | 20,331 | 7,484 | 13,090 | 13,930 | 15,998 |
| March | 30,334 | 25,566 | 27,112 | 22,491 | 11,373 | 14,912 | 14,625 | 17,687 |
| April | 26,750 | 26,685 | 24,243 | 21,891 | 16,830 | 14,351 | 11,061 | 15,500 |
| May | 35,663 | 26,708 | 21,368 | 21,665 | 20,022 | 15,045 | 12,303 | 15,689 |
| June | 41,685 | 30,096 | 23,362 | 21,137 | 15,585 | 14,532 | 14,317 | 15,164 |
| July | 40,532 | 25,383 | 15,106 | 21,907 | 17,221 | 11,093 | 12,132 | 11,598 |
| August | 24,541 | 20,475 | 16,959 | 15,659 | 12,293 | 13,376 | 13,729 | 15,046 |
| September | 38,250 | 30,894 | 23,775 | 24,205 | 11,543 | 8,484 | 12,511 | 13,122 |
| October | 35,960 | 28,125 | 25,057 | 25,479 | 14,951 | 6,596 | 13,230 | 13,827 |
| November | 31,148 | 19,721 | 26,794 | 23,240 | 19,105 | 1,575 | 14,047 | 14,186 |
| December | 31,226 | 27,871 | 26,887 | 21,310 | 16,626 | 5,846 | 12,451 | 13,906 |
| Total | 395,535 | 292,584 | 263,760 | 258,015 | 171,528 | 132,645 | 158,038 | 178,064 |

† Includes imports from United States.

## 1949 Canadian Motor Vehicle Registrations—by Provinces

| Province | Passenger Cars | Motor Trucks | Motor Buses | Other Motor Vehicles† | Total Motor Vehicles | Motor-cycles | Trailers |
|---|---|---|---|---|---|---|---|
| Newfoundland | 9,022 | 4,098 | 306 | 303 | 13,729 | 252 | 103 |
| Pr. Edward Island | 9,093 | 3,073 | 25 | 924 | 13,115 | 51 | 654 |
| Nova Scotia | 54,419 | 25,065 | 500 | 3,176 | 82,160 | 1,283 | 2,598 |
| New Brunswick | 43,989 | 18,806 | 363 | 3,991 | 67,149 | 1,303 | 3,428 |
| Quebec | 267,097 | 85,114 | 3,455 | 769 | 957,111 | 13,027 | 71,521 |
| Ontario | 771,709 | 181,178 | 2,777 | 15,732 | 370,720 | 14,013 | 20,493 |
| Manitoba | 98,833 | 35,610 | 178 | 2,198 | 136,819 | 1,757 | 9,785 |
| Saskatchewan | 120,291 | 63,063 | 285 | 90 | 183,729 | 1,298 | 10,045 |
| Alberta | 131,377 | 60,163 | 1,523 | 5,699 | 198,762 | 2,249 | 615 |
| British Columbia | 165,106 | 58,215 | 635 | 1,371 | 225,327 | 4,681 | 10,739 |
| Yukon and N.W.T. | 714 | 1,555 | 31 | 221 | 2,521 | 23 | 105 |
| Total—Canada | 1,671,650 | 535,940 | 10,078 | 33,474 | 2,251,142 | 39,937 | 130,086 |

† Includes road tractors, ambulances, fire trucks, hearses, government and municipal vehicles.

# NEW REGISTRATIONS

## PASSENGER CARS • TRUCKS

### New Passenger Car Registrations by Makes, by Years*

| Make of Car | 1950 Units | 1950 % of Total | 1949 Units | 1949 % of Total | 1948 Units | 1948 % of Total | 1947 Units | 1947 % of Total | 1946 Units | 1946 % of Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Chrysler | 151,300 | 2.39 | 130,516 | 2.70 | 105,315 | 3.02 | 93,871 | 2.96 | 65,532 | 3.61 |
| De Soto | 115,023 | 1.82 | 103,311 | 2.14 | 82,454 | 2.36 | 72,966 | 2.30 | 54,420 | 2.99 |
| Dodge | 300,104 | 4.74 | 273,530 | 5.65 | 213,923 | 6.13 | 209,552 | 6.62 | 135,488 | 7.46 |
| Plymouth | 547,367 | 8.65 | 527,915 | 10.91 | 347,174 | 9.94 | 313,118 | 9.89 | 211,800 | 11.68 |
| Total—Chrysler Corp. | 1,113,794 | 17.60 | 1,035,272 | 21.40 | 748,866 | 21.45 | 689,507 | 21.77 | 467,240 | 25.74 |
| Ford | 1,166,118 | 18.43 | 806,766 | 16.67 | 486,888 | 13.95 | 532,646 | 16.82 | 326,822 | 18.01 |
| Lincoln | 34,318 | .54 | 37,691 | .78 | 32,638 | .93 | 24,081 | .76 | 10,798 | .59 |
| Mercury | 318,217 | 5.03 | 186,629 | 3.86 | 137,512 | 3.94 | 111,198 | 3.51 | 61,187 | 3.37 |
| Total—Ford Motor Co. | 1,518,653 | 24.00 | 1,031,086 | 21.31 | 657,038 | 18.82 | 667,925 | 21.09 | 398,807 | 21.97 |
| Buick | 535,807 | 8.47 | 372,425 | 7.10 | 244,762 | 7.01 | 246,115 | 7.77 | 126,322 | 6.96 |
| Cadillac | 101,825 | 1.61 | 80,880 | 1.67 | 59,379 | 1.70 | 53,379 | 1.69 | 23,666 | 1.30 |
| Chevrolet | 1,420,399 | 22.45 | 1,031,466 | 21.32 | 709,609 | 20.33 | 640,709 | 20.23 | 329,601 | 18.16 |
| Oldsmobile | 372,619 | 5.89 | 269,351 | 5.57 | 175,531 | 5.03 | 180,078 | 5.68 | 93,094 | 5.13 |
| Pontiac | 440,528 | 6.96 | 321,033 | 6.63 | 228,939 | 6.56 | 206,411 | 6.52 | 113,109 | 6.23 |
| Total—General Motors Corp. | 2,871,978 | 45.38 | 2,075,155 | 42.89 | 1,418,220 | 40.63 | 1,326,692 | 41.89 | 685,792 | 37.78 |
| Frazer | 11,884 | .19 | 15,827 | .33 | 57,994 | 1.66 | 51,158 | 1.62 | 1,873 | .10 |
| Henry J. | 14,339 | .23 | ... | ... | ... | ... | ... | ... | 3,501 | .19 |
| Kaiser | 85,832 | 1.35 | 57,995 | 1.20 | 108,367 | 3.10 | 55,571 | 1.74 | ... | ... |
| Total—Kaiser-Frazer Corp. | 112,055 | 1.77 | 73,822 | 1.53 | 166,361 | 4.76 | 106,729 | 3.37 | 5,374 | .29 |
| Crosley | 6,936 | .11 | 10,175 | .21 | 25,400 | .73 | 15,934 | .50 | 2,865 | .16 |
| Hudson | 134,219 | 2.12 | 137,907 | 2.85 | 109,497 | 3.14 | 83,344 | 2.63 | 72,484 | 3.99 |
| Nash | 175,722 | 2.78 | 135,328 | 2.80 | 104,156 | 2.98 | 102,808 | 3.25 | 85,169 | 4.69 |
| Packard | 73,155 | 1.16 | 97,771 | 2.02 | 77,845 | 2.23 | 47,875 | 1.51 | 36,425 | 2.01 |
| Studebaker | 268,229 | 4.24 | 199,460 | 4.12 | 143,120 | 4.10 | 102,123 | 3.22 | 58,051 | 3.20 |
| Willys | 33,926 | .53 | 28,576 | .59 | 21,408 | .61 | 23,400 | .74 | 2,329 | .13 |
| Misc. Domestic | 2,375 | .04 | 1,539 | .03 | 2,910 | .09 | 894 | .03 | 647 | .04 |
| Total Independents | 806,577 | 12.75 | 684,578 | 14.15 | 650,695 | 18.64 | 483,107 | 15.25 | 263,357 | 14.51 |
| British Austin | 5,452 | .09 | 3,642 | .08 | 8,610 | .25 | ... | ... | ... | ... |
| British Ford | 1,869 | .04 | 5,087 | .10 | 3,233 | .09 | ... | ... | ... | ... |
| Misc. Foreign | 9,015 | .14 | 3,522 | .07 | 4,300 | .12 | ... | ... | ... | ... |
| Total—Foreign | 16,336 | .27 | 12,251 | .25 | 16,133 | .46 | ... | ... | ... | ... |
| Total—All Makes | 6,326,439 | 100.00 | 4,838,342 | 100.00 | 3,490,952 | 100.00 | 3,167,231 | 100.00 | 1,815,196 | 100.00 |

* Data from R. L. Polk & Co.

### New Truck Registrations by Makes, by Years*

| Make of Truck | 1950 Units | 1950 % of Total | 1949 Units | 1949 % of Total | 1948 Units | 1948 % of Total | 1947 Units | 1947 % of Total | 1946 Units | 1946 % of Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Autocar | 2,072 | .18 | 1,655 | .17 | 2,770 | .27 | 4,334 | .49 | 4,755 | .76 |
| Brockway | 2,384 | .21 | 1,626 | .17 | 2,958 | .29 | 4,255 | .48 | 3,683 | .59 |
| Chevrolet | 414,496 | 36.28 | 345,519 | 35.93 | 302,219 | 29.19 | 235,803 | 26.82 | 171,618 | 27.44 |
| Crosley | 422 | .04 | 871 | .09 | 2,411 | .23 | ... | ... | ... | ... |
| Diamond T | 5,675 | .50 | 5,172 | .54 | 10,657 | 1.03 | 10,475 | 1.19 | 5,093 | .81 |
| Divco | 4,309 | .38 | 3,577 | .37 | 5,618 | .54 | 4,893 | .56 | 3,734 | .60 |
| Dodge | 99,716 | 8.73 | 116,956 | 12.16 | 114,431 | 11.05 | 126,736 | 14.42 | 96,490 | 15.43 |
| Federal | 1,469 | .13 | 1,225 | .13 | 4,026 | .39 | 6,020 | .68 | 4,557 | .73 |
| Ford | 315,912 | 27.66 | 202,179 | 21.02 | 225,729 | 21.81 | 186,414 | 21.20 | 131,469 | 21.03 |
| F.W.D. | 323 | .03 | 337 | .04 | 811 | .08 | 1,195 | .14 | 585 | .09 |
| G.M.C. | 97,290 | 8.51 | 80,407 | 8.36 | 74,857 | 7.23 | 49,187 | 5.59 | 25,645 | 4.10 |
| Hudson | ... | ... | ... | ... | 117 | .01 | 2,534 | .29 | 2,563 | .41 |
| International | 97,818 | 8.56 | 91,164 | 9.48 | 125,203 | 12.09 | 113,151 | 12.87 | 78,392 | 12.54 |
| Kenworth | 673 | .06 | 396 | .04 | 478 | .05 | 487 | .06 | ... | ... |
| Mack | 9,908 | .87 | 6,862 | .71 | 9,795 | .95 | 10,917 | 1.24 | 4,687 | .75 |
| Oshkosh | † | ... | † | ... | 173 | .02 | 245 | .03 | ... | ... |
| Pontiac | 1,362 | .12 | 775 | .08 | ... | ... | ... | ... | ... | ... |
| Reo | 3,876 | .34 | 4,003 | .41 | 10,773 | 1.04 | 12,911 | 1.47 | 10,459 | 1.68 |
| Sterling | 334 | .03 | 229 | .02 | 411 | .04 | 576 | .07 | 510 | .08 |
| Studebaker | 45,881 | 4.02 | 55,099 | 5.73 | 50,657 | 4.89 | 41,861 | 4.76 | 25,360 | 4.06 |
| Ward La France | † | ... | † | ... | 271 | .03 | 509 | .06 | ... | ... |
| White | 12,050 | 1.05 | 8,318 | .86 | 11,603 | 1.12 | 13,086 | 1.49 | 10,117 | 1 62 |
| Willys—Jeep | 8,841 | .77 | 14,472 | 1.50 | 48,644 | 4.70 | 47,612 | 5.42 | 42,135 | 6.74 |
| Willys—Truck | 15,799 | 1.38 | 18,293 | 1.90 | 27,540 | 2.59 | 2,207 | .25 | ... | ... |
| All Others | 1,767 | .15 | 2,826 | .29 | 2,722 | .26 | 3,724 | .42 | 3,387 | .54 |
| Total | 1,142,307 | 100.00 | 961,961 | 100.00 | 1,035,174 | 100.00 | 879,132 | 100.00 | 625,249 | 100.00 |

* Data from R. L. Polk & Co. † Included with All Others

# NEW REGISTRATIONS

## New Car Registrations by Months, 1946-1950

| | 1950 | | 1949 | | 1948 | | 1947 | | 1946 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Units | % of Total | Units | % of Total | Units | % of Total | Units | % of Total | Units | % of Total |
| January | 381,562 | 6.03 | 273,158 | 5.64 | 274,978 | 7.88 | 209,063 | 6.60 | ..... | ..... |
| February | 408,990 | 6.46 | 258,216 | 5.34 | 249,781 | 7.16 | 214,333 | 6.77 | ..... | ..... |
| March | 495,855 | 7.84 | 360,567 | 7.45 | 311,650 | 8.93 | 264,714 | 8.36 | ..... | ..... |
| April | 471,215 | 7.45 | 390,938 | 8.08 | 330,555 | 9.47 | 290,226 | 9.16 | ..... | ..... |
| May | 488,363 | 7.72 | 446,264 | 9.22 | 255,638 | 7.32 | 286,719 | 9.05 | ..... | ..... |
| June | 583,922 | 9.23 | 452,471 | 9.34 | 246,926 | 7.07 | 269,863 | 8.52 | 493,298* | 27.18* |
| July | 609,926 | 9.64 | 448,477 | 9.27 | 291,206 | 8.34 | 263,167 | 8.31 | 172,961 | 9.53 |
| August | 683,995 | 10.81 | 478,556 | 9.89 | 317,788 | 9.10 | 264,866 | 8.36 | 199,316 | 10.98 |
| September | 625,755 | 9.89 | 459,647 | 9.50 | 296,339 | 8.49 | 251,655 | 7.95 | 219,281 | 12.08 |
| October | 580,373 | 9.17 | 465,765 | 9.63 | 291,442 | 8.35 | 281,428 | 8.89 | 225,180 | 12.41 |
| November | 444,193 | 7.03 | 409,702 | 8.47 | 313,230 | 8.97 | 258,934 | 8.17 | 230,424 | 12.69 |
| December | 552,259 | 8.73 | 414,579 | 8.57 | 311,419 | 8.92 | 312,263 | 9.86 | 274,735 | 15.13 |
| Total | 6,326,438 | 100.00 | 4,838,342 | 100.00 | 3,490,952 | 100.00 | 3,167,231 | 100.00 | 1,815,196 | 100.00 |

Data from R. L. Polk & Co. *Total for January through June.

## REGIONAL SALES OF NEW PASSENGER CARS.

| Zone | Region | 1950 Units | 1950 % of Total | 1949 Units | 1949 % of Total | 1948 Units | 1948 % of Total | Per Cent Change 1950 over 1949 | Per Cent Change 1950 over 1948 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | New England | 347,679 | 5.50 | 275,686 | 5.70 | 209,633 | 6.01 | +26.11 | +65.85 |
| 2 | Middle Atlantic | 1,188,015 | 18.78 | 912,922 | 18.87 | 712,963 | 20.42 | +30.13 | +66.63 |
| 3 | South Atlantic | 729,184 | 11.52 | 558,429 | 11.54 | 390,273 | 11.18 | +30.58 | +86.84 |
| 4 | East North Central | 1,587,854 | 25.10 | 1,239,079 | 25.61 | 897,684 | 25.71 | +28.15 | +76.88 |
| 5 | East South Central | 313,994 | 4.96 | 238,883 | 4.94 | 171,897 | 4.92 | +31.44 | +82.66 |
| 6 | West North Central | 670,954 | 10.61 | 511,872 | 10.58 | 350,895 | 10.05 | +31.08 | +91.21 |
| 7 | West South Central | 584,875 | 9.24 | 409,250 | 8.46 | 279,565 | 8.01 | +42.91 | +109.21 |
| 8 | Mountain | 220,562 | 3.49 | 168,274 | 3.48 | 112,069 | 3.21 | +31.11 | +96.81 |
| 9 | Pacific | 683,321 | 10.80 | 518,997 | 10.72 | 365,973 | 10.48 | +31.66 | +86.71 |
| | Total—United States | 6,326,438 | 100.00 | 4,838,342 | 100.00 | 3,490,952 | 100.00 | +30.76 | +81.22 |

States comprising the various regions are:—Zone 1: Conn., Me., N. H., R. I., Vt.—Zone 2: N. J., N. Y., Pa.—Zone 3: Del., D. of C., Fla., Ga., Md., N. C., S. C., Va., W. Va.—Zone 4: Ill., Inc., Mich., Ohio, Wisc.—Zone 5: Ala., Ky., Miss., Tenn.—Zone 6: Iowa, Kan., Minn., Mo., Neb., N. D., S. D.—Zone 7: Ark., La., Okla., Tex.—Zone 8: Ariz., Colo., Ida., Mont., Nev., N. M., Utah, Wyo.—Zone 9: Cal., Ore., Wash.

## New Motor Vehicle Registrations, by States*

| | NEW PASSENGER CARS | | | NEW TRUCKS | | | TOTAL MOTOR VEHICLES | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1950 | 1949 | 1948 | 1950 | 1949 | 1948 | 1950 | 1949 | 1948 |
| Alabama | 79,156 | 58,273 | 40,432 | 25,187 | 21,674 | 22,309 | 104,343 | 79,947 | 62,741 |
| Arizona | 26,570 | 20,995 | 12,994 | 6,980 | 5,744 | 6,042 | 33,550 | 26,739 | 19,036 |
| Arkansas | 47,003 | 34,030 | 21,319 | 24,086 | 21,969 | 18,289 | 71,089 | 55,999 | 39,608 |
| California | 519,999 | 389,544 | 272,209 | 66,685 | 55,036 | 64,009 | 586,684 | 444,580 | 336,218 |
| Colorado | 58,953 | 42,770 | 27,942 | 15,101 | 12,569 | 12,285 | 74,054 | 55,339 | 40,227 |
| Connecticut | 86,097 | 66,278 | 50,745 | 9,199 | 7,212 | 9,903 | 95,296 | 73,490 | 60,648 |
| Delaware | 17,421 | 14,655 | 9,986 | 3,076 | 2,867 | 3,238 | 20,497 | 17,522 | 13,284 |
| Dist. of Col. | 33,466 | 29,209 | 25,270 | 3,109 | 2,954 | 3,987 | 36,575 | 32,163 | 29,257 |
| Florida | 116,804 | 84,238 | 53,746 | 24,686 | 19,769 | 19,557 | 141,590 | 104,007 | 73,303 |
| Georgia | 113,923 | 80,886 | 59,703 | 33,464 | 27,354 | 28,207 | 147,387 | 108,240 | 87,910 |
| Idaho | 27,355 | 23,211 | 14,554 | 8,387 | 8,091 | 8,258 | 35,742 | 31,302 | 22,812 |
| Illinois | 417,871 | 345,156 | 241,231 | 50,681 | 51,130 | 52,646 | 468,552 | 396,286 | 293,877 |
| Indiana | 200,112 | 148,827 | 101,128 | 32,453 | 26,062 | 27,196 | 232,565 | 174,889 | 128,324 |
| Iowa | 128,114 | 102,183 | 68,947 | 27,722 | 25,823 | 26,358 | 155,836 | 128,006 | 95,305 |
| Kansas | 91,572 | 74,760 | 48,970 | 21,599 | 22,234 | 22,246 | 113,171 | 96,994 | 71,216 |
| Kentucky | 78,897 | 61,597 | 43,082 | 24,307 | 21,116 | 22,170 | 103,204 | 82,713 | 65,252 |
| Louisiana | 81,231 | 65,520 | 44,925 | 20,573 | 18,684 | 16,061 | 101,804 | 84,204 | 60,986 |
| Maine | 29,175 | 23,140 | 17,298 | 7,030 | 6,032 | 7,497 | 36,205 | 29,172 | 24,795 |
| Maryland | 93,227 | 69,985 | 52,762 | 12,547 | 9,954 | 13,267 | 105,774 | 79,939 | 66,029 |
| Massachusetts | 166,815 | 133,288 | 102,244 | 18,279 | 12,698 | 17,878 | 185,094 | 145,986 | 120,122 |
| Michigan | 430,321 | 321,421 | 250,853 | 47,241 | 35,257 | 39,568 | 477,562 | 356,678 | 290,421 |
| Minnesota | 153,202 | 107,435 | 76,781 | 26,554 | 22,555 | 23,996 | 179,757 | 129,990 | 100,777 |
| Mississippi | 50,797 | 40,163 | 28,242 | 21,424 | 18,663 | 18,093 | 72,221 | 58,826 | 46,335 |
| Missouri | 174,594 | 131,249 | 93,266 | 38,586 | 31,915 | 31,611 | 212,980 | 163,164 | 124,877 |
| Montana | 31,249 | 23,681 | 18,014 | 10,102 | 9,714 | 10,453 | 41,351 | 33,395 | 28,467 |
| Nebraska | 67,964 | 51,105 | 35,234 | 18,130 | 17,030 | 16,664 | 86,094 | 68,135 | 51,898 |
| Nevada | 7,672 | 6,607 | 5,028 | 1,781 | 1,788 | 1,654 | 9,453 | 8,395 | 6,682 |
| New Hampshire | 19,154 | 15,162 | 10,539 | 3,714 | 3,147 | 3,838 | 22,868 | 18,309 | 14,377 |
| New Jersey | 210,785 | 165,842 | 116,945 | 27,549 | 23,158 | 25,219 | 238,334 | 189,000 | 142,164 |
| New Mexico | 23,289 | 17,571 | 10,897 | 8,797 | 7,446 | 6,082 | 32,086 | 25,017 | 16,979 |
| New York | 642,195 | 515,634 | 338,254 | 57,803 | 47,784 | 62,446 | 699,998 | 563,418 | 400,700 |
| North Carolina | 119,477 | 93,514 | 59,584 | 31,904 | 27,551 | 28,054 | 151,381 | 121,065 | 87,638 |
| North Dakota | 27,549 | 22,905 | 13,259 | 7,623 | 9,690 | 8,283 | 35,181 | 32,595 | 21,542 |
| Ohio | 388,389 | 302,830 | 220,248 | 52,741 | 39,886 | 47,755 | 441,130 | 342,716 | 268,003 |
| Oklahoma | 90,591 | 65,563 | 44,942 | 27,332 | 23,677 | 22,544 | 117,923 | 89,240 | 67,486 |
| Oregon | 72,261 | 55,212 | 39,655 | 15,223 | 12,865 | 15,560 | 87,484 | 68,077 | 55,215 |
| Pennsylvania | 435,035 | 336,446 | 257,764 | 61,472 | 46,366 | 60,271 | 496,508 | 382,752 | 318,036 |
| Rhode Island | 32,884 | 24,463 | 19,816 | 3,825 | 3,479 | 4,660 | 36,709 | 27,942 | 24,476 |
| South Carolina | 58,072 | 43,543 | 30,599 | 13,922 | 12,148 | 12,536 | 71,995 | 57,691 | 43,135 |
| South Dakota | 28,158 | 22,215 | 14,338 | 7,522 | 8,074 | 7,872 | 35,680 | 30,289 | 22,210 |
| Tennessee | 105,144 | 78,850 | 60,141 | 33,279 | 26,682 | 26,756 | 138,423 | 105,532 | 86,897 |
| Texas | 366,050 | 243,837 | 168,379 | 99,053 | 71,650 | 67,737 | 465,103 | 315,487 | 236,116 |
| Utah | 27,670 | 21,366 | 13,874 | 6,263 | 5,756 | 5,968 | 33,933 | 27,122 | 19,842 |
| Vermont | 13,554 | 13,355 | 8,991 | 3,001 | 3,458 | 4,294 | 16,555 | 16,813 | 13,285 |
| Virginia | 130,886 | 104,106 | 73,515 | 24,541 | 21,648 | 23,530 | 155,427 | 125,754 | 97,045 |
| Washington | 91,061 | 74,241 | 54,109 | 11,558 | 14,048 | 18,054 | 102,619 | 88,289 | 72,163 |
| West Virginia | 45,807 | 36,293 | 25,098 | 25,076 | 10,451 | 12,082 | 70,883 | 46,744 | 37,180 |
| Wisconsin | 151,161 | 120,845 | 84,224 | 15,201 | 22,596 | 23,398 | 166,362 | 143,441 | 107,622 |
| Wyoming | 17,804 | 12,023 | 8,766 | 5,932 | 4,567 | 4,853 | 23,736 | 16,590 | 13,619 |
| Total | 6,326,438 | 4,838,342 | 3,490,952 | 1,142,307 | 961,961 | 1,035,174 | 7,468,745 | 5,800,303 | 4,526,126 |

* Data from R. L. Polk & Co.

# • NEW REGISTRATIONS •

## New Truck Registrations— By Makes and G.V.W.

| | Year | 5,000 lb. and less | 5,001-10,000 | 10,001-14,000 | 14,001-16,000 | 16,001-19,500 | 19,501-26,000 | Over 26,000 | Total |
|---|---|---|---|---|---|---|---|---|---|
| AUTOCAR | 1950 | ..... | ..... | ..... | ..... | ..... | ..... | 2,072 | 2,072 |
| | 1949 | ..... | ..... | ..... | ..... | ..... | ..... | 1,655 | 1,655 |
| | 1948 | ..... | ..... | ..... | ..... | ..... | ..... | 2,770 | 2,770 |
| BROCKWAY | 1950 | ..... | ..... | ..... | 17 | 168 | 422 | 1,777 | 2,384 |
| | 1949 | ..... | ..... | ..... | 166 | 128 | 631 | 701 | 1,626 |
| | 1948 | ..... | ..... | ..... | 370 | 239 | 1,606 | 743 | 2,958 |
| CHEVROLET | 1950 | 228,885 | 89,000 | 26,667 | 69,964 | ..... | ..... | ..... | 414,496 |
| | 1949 | 179,489 | 89,622 | 26,890 | 49,518 | ..... | ..... | ..... | 345,519 |
| | 1948 | 124,669 | 72,142 | 32,651 | 72,756 | ..... | ..... | ..... | 302,219 |
| CROSLEY | 1950 | 422 | ..... | ..... | ..... | ..... | ..... | ..... | 422 |
| | 1949 | 871 | ..... | ..... | ..... | ..... | ..... | ..... | 871 |
| | 1948 | 2,411 | ..... | ..... | ..... | ..... | ..... | ..... | 2,411 |
| DIAMOND T | 1950 | ..... | 611 | 1,267 | 668 | 1,490 | 1,164 | 475 | 5,675 |
| | 1949 | ..... | 1,025 | 1,507 | 1,217 | 521 | 552 | 349 | 5,172 |
| | 1948 | ..... | 1,115 | 3,779 | 3,530 | 1,126 | 704 | 403 | 10,657 |
| DIVCO | 1950 | ..... | 4,121 | 188 | ..... | ..... | ..... | ..... | 4,309 |
| | 1949 | ..... | 3,168 | 409 | ..... | ..... | ..... | ..... | 3,577 |
| | 1948 | ..... | 4,678 | 940 | ..... | ..... | ..... | ..... | 5,618 |
| DODGE | 1950 | 47,344 | 25,577 | 5,003 | 13,012 | 7,554 | 931 | 295 | 99,716 |
| | 1949 | 52,866 | 32,398 | 50 | 20,945 | 9,482 | 1,212 | 3 | 116,956 |
| | 1948 | 42,097 | 28,710 | 978 | 29,777 | 11,377 | 1,492 | ..... | 114,431 |
| FEDERAL | 1950 | ..... | ..... | 31 | 370 | 331 | 629 | 108 | 1,469 |
| | 1949 | ..... | ..... | 60 | 467 | 266 | 357 | 75 | 1,225 |
| | 1948 | ..... | ..... | 625 | 1,981 | 396 | 831 | 203 | 4,036 |
| FORD | 1950 | 164,027 | 58,959 | 31,458 | 45,997 | 6,541 | 9,230 | ..... | 315,912 |
| | 1949 | 99,044 | 35,909 | 30,387 | 25,901 | 6,795 | 4,143 | ..... | 202,179 |
| | 1948 | 79,616 | 50,287 | 51,140 | 31,047 | 10,717 | 2,922 | ..... | 225,729 |
| F.W.D. | 1950 | ..... | ..... | ..... | ..... | ..... | 29 | 268 | 26 | 323 |
| | 1949 | ..... | ..... | ..... | ..... | ..... | 27 | 227 | 83 | 337 |
| | 1948 | ..... | ..... | ..... | ..... | ..... | 64 | 609 | 138 | 811 |
| G.M.C. | 1950 | 42,152 | 19,741 | 9,877 | 11,549 | 5,650 | 5,720 | 2,511 | 97,200 |
| | 1949 | 34,431 | 18,616 | 8,966 | 8,375 | 5,245 | 2,048 | 2,726 | 80,407 |
| | 1948 | 20,962 | 14,316 | 15,339 | 9,522 | 8,507 | 3,175 | 3,036 | 74,857 |
| INTERNATIONAL | 1950 | 25,670 | 21,018 | 3,152 | 22,067 | 12,702 | 10,498 | 2,710 | 97,818 |
| | 1949 | 20,603 | 25,647 | 575 | 26,100 | 9,540 | 7,079 | 1,620 | 91,164 |
| | 1948 | 25,000 | 29,308 | 20,749 | 13,078 | 13,474 | 10,207 | 3,389 | 125,203 |
| KENWORTH | 1950 | ..... | ..... | ..... | ..... | ..... | ..... | 50 | 623 | 673 |
| | 1949 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 392 | 392 |
| | 1948 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 478 | 478 |
| MACK | 1950 | ..... | ..... | ..... | 272 | 832 | 1,737 | 7,066 | 9,908 |
| | 1949 | ..... | ..... | ..... | 654 | 741 | 1,826 | 3,645 | 6,866 |
| | 1948 | ..... | ..... | ..... | 960 | 1,274 | 4,202 | 3,359 | 9,795 |
| PONTIAC | 1950 | 1,362 | ..... | ..... | ..... | ..... | ..... | ..... | 1,362 |
| | 1949 | 775 | ..... | ..... | ..... | ..... | ..... | ..... | 775 |
| | 1948 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| REO | 1950 | ..... | 10 | ..... | 1,233 | 1,043 | 1,559 | 32 | 3,876 |
| | 1949 | ..... | ..... | ..... | 2,281 | 1,304 | 327 | 91 | 4,003 |
| | 1948 | ..... | ..... | 3,953 | 4,884 | 1,404 | 246 | 486 | 10,773 |
| STERLING | 1950 | ..... | ..... | ..... | ..... | ..... | 63 | 291 | 354 |
| | 1949 | ..... | ..... | ..... | ..... | ..... | 16 | 213 | 229 |
| | 1948 | ..... | ..... | ..... | ..... | ..... | 14 | 397 | 411 |
| STUDEBAKER | 1950 | 26,649 | 8,772 | 6,309 | 4,151 | ..... | ..... | ..... | 45,881 |
| | 1949 | 25,159 | 14,788 | 9,279 | 5,873 | ..... | ..... | ..... | 55,099 |
| | 1948 | 18,651 | 10,979 | 16,638 | 4,389 | ..... | ..... | ..... | 50,657 |
| WHITE | 1950 | ..... | ..... | ..... | 551 | 1,235 | 8,135 | 2,129 | 12,050 |
| | 1949 | ..... | ..... | ..... | 543 | 1,305 | 5,173 | 1,297 | 8,318 |
| | 1948 | ..... | ..... | ..... | 1,005 | 423 | 8,701 | 1,474 | 11,603 |
| WILLYS-JEEP | 1950 | 8,841 | ..... | ..... | ..... | ..... | ..... | ..... | 8,841 |
| | 1949 | 14,472 | ..... | ..... | ..... | ..... | ..... | ..... | 14,472 |
| | 1948 | 48,644 | ..... | ..... | ..... | ..... | ..... | ..... | 48,644 |
| WILLYS-TRUCK | 1950 | 10,875 | 4,924 | ..... | ..... | ..... | ..... | ..... | 15,799 |
| | 1949 | 9,284 | 9,009 | ..... | ..... | ..... | ..... | ..... | 18,293 |
| | 1948 | 16,766 | 11,074 | ..... | ..... | ..... | ..... | ..... | 27,840 |
| ALL OTHERS | 1950 | 364 | 32 | 66 | 17 | 31 | 289 | 968 | 1,767 |
| | 1949 | 1,322 | 111 | 259 | 24 | 222 | 339 | 649 | 2,826 |
| | 1948 | 858 | 467 | 162 | 3 | 263 | 403 | 1,132 | 3,283 |
| TOTAL | 1950 | 556,571 | 232,465 | 84,018 | 169,869 | 37,606 | 40,695 | 21,083 | 1,142,307 |
| | 1949 | 438,316 | 230,293 | 78,382 | 142,064 | 35,576 | 23,831 | 13,499 | 961,961 |
| | 1948 | 379,674 | 223,065 | 156,954 | 178,102 | 49,264 | 35,107 | 18,008 | 1,035,174 |
| | 1947 | 278,251 | 163,643 | 220,801 | 162,549 | 25,329 | 29,076 | 19,483 | 879,132 |
| % OF TOTAL | 1950 | 48.72% | 20.35% | 7.36% | 14.87% | 3.29% | 3.56% | 1.85% | 100.00% |
| | 1949 | 45.56% | 23.94% | 8.15% | 14.77% | 3.70% | 2.48% | 1.40% | 100.00% |
| | 1948 | 36.68% | 21.55% | 15.16% | 16.72% | 4.76% | 3.39% | 1.74% | 100.00% |
| | 1947 | 31.65% | 17.45% | 25.12% | 17.35% | 2.88% | 3.30% | 2.22% | 100.00% |

• Based on data from R. L. Polk & Co.

## 1950 New Car Registrations—by Rank

| Make | Units |
|---|---|
| Chevrolet | 1,420,399 |
| Ford | 1,166,118 |
| Plymouth | 647,367 |
| Buick | 535,807 |
| Pontiac | 440,528 |
| Oldsmobile | 372,519 |
| Mercury | 318,317 |
| Dodge | 300,104 |
| Studebaker | 268,229 |
| Nash | 175,723 |
| Chrysler | 151,300 |
| Hudson | 134,219 |
| De Soto | 115,023 |
| Cadillac | 101,825 |
| Kaiser | 85,832 |
| Packard | 73,155 |
| Lincoln | 34,318 |
| Willys | 33,926 |
| Henry J | 14,339 |
| Frazer | 11,884 |
| Crosley | 6,896 |
| British Austin | 5,452 |
| British Ford | 1,869 |
| Miscellaneous | 11,390 |
| Total | 6,326,439 |

## 1950 New Truck Registrations—by Rank

| Make | Units |
|---|---|
| Chevrolet | 414,496 |
| Ford | 315,912 |
| Dodge | 99,716 |
| International | 97,818 |
| G.M.C. | 97,200 |
| Studebaker | 45,881 |
| Willys—Truck | 15,799 |
| White | 12,050 |
| Mack | 9,908 |
| Willys—Jeep | 8,841 |
| Diamond T | 5,675 |
| Divco | 4,309 |
| Reo | 3,876 |
| Brockway | 2,384 |
| Autocar | 2,072 |
| Federal | 1,469 |
| Pontiac | 1,362 |
| Kenworth | 673 |
| Crosley | 422 |
| Sterling | 354 |
| F.W.D. | 323 |
| Miscellaneous | 1,767 |
| Total | 1,142,307 |

## New Car and Truck Registrations—by Years*

| Year | New Passenger Cars | New Commercial Vehicles |
|---|---|---|
| 1929 | 3,880,206 | 527,057 |
| 1930 | 2,625,979 | 410,699 |
| 1931 | 1,968,141 | 313,884 |
| 1932 | 1,096,399 | 180,413 |
| 1933 | 1,943,794 | 245,869 |
| 1934 | 1,888,557 | 403,886 |
| 1935 | 2,742,908 | 510,683 |
| 1936 | 2,404,497 | 611,644 |
| 1937 | 3,483,752 | 618,249 |
| 1938 | 1,891,021 | 365,849 |
| 1939 | 2,653,377 | 486,748 |
| 1940 | 3,415,905 | 559,150 |
| 1941 | 3,731,166 | 640,697 |
| 1942 | 204,691 | 77,422 |
| 1943 | 205,805 | 62,469 |
| 1944 | 65,730 | 121,269 |
| 1945 | 71,877 | 350,932 |
| 1946 | 1,815,196 | 625,249 |
| 1947 | 3,167,231 | 879,132 |
| 1948 | 3,490,962 | 1,035,174 |
| 1949 | 4,838,342 | 961,961 |
| 1950 | 6,326,439 | 1,142,307 |

* Sources: 1926 through February, 1942 and 1946 and later years compiled by R. L. Polk & Co. Passenger car data from March, 1942 through July, 1945 are from OPA and represent new car releases to civilian users. Commercial car data from April, 1942 through July, 1945 are from WPB and ODT and represent certificates of transfer issued to civilian users, excluding government exemption permits.

## Automotive Wholesalers, Dealers and Repair Shops—by Years*

(As of January of Each Year)

| | Wholesalers | Passenger Car Dealers | Total Truck Dealers | Car and Truck Dealers | Independent Repair Shops | All Retail Outlets |
|---|---|---|---|---|---|---|
| 1930 | 4,028 | 51,560 | 25,436 | ..... | 47,882 | 117,498 |
| 1931 | 4,668 | 47,144 | 26,137 | 43,658 | 53,898 | 118,713 |
| 1932 | 5,051 | 42,881 | 25,952 | 43,708 | 58,045 | 108,147 |
| 1933 | 5,337 | 38,003 | 23,746 | 39,370 | 59,547 | 103,113 |
| 1934 | 5,430 | 34,069 | ..... | 35,265 | 65,064 | 102,456 |
| 1935 | 5,757 | 35,977 | ..... | 37,238 | 64,513 | 105,991 |
| 1936 | 5,905 | 39,769 | 23,045 | 41,201 | 60,574 | 105,579 |
| 1937 | 5,874 | 41,288 | 24,853 | 43,461 | 56,423 | 102,808 |
| 1938 | 5,924 | 43,747 | 27,248 | 46,224 | 51,709 | 101,053 |
| 1939 | 6,019 | 39,936 | 26,909 | 41,992 | 50,406 | 95,418 |
| 1940 | 6,176 | 39,258 | 24,575 | 41,870 | 49,091 | 93,764 |
| 1941 | 6,575 | 39,832 | 24,992 | 41,790 | 49,208 | 95,296 |
| 1942 | 6,631 | 38,748 | 32,291 | 40,537 | 47,552 | 93,022 |
| 1943 | 6,130 | 32,470 | 27,820 | 34,270 | 42,540 | 80,868 |
| 1944 | 6,101 | 31,200 | ..... | 33,000 | 42,166 | 78,550 |
| 1945 | 6,217 | 30,110 | 26,370 | 31,930 | 41,192 | 78,498 |
| 1946 | 6,612 | 30,709 | 27,159 | 32,439 | 42,702 | 81,638 |
| 1947 | 7,328 | 34,424 | 29,397 | 36,354 | 49,485 | 91,229 |
| 1948 | 7,982 | 38,480 | 25,998† | 40,410 | 55,694 | 104,504 |
| 1949 | 8,338 | 40,022 | 27,574 | 42,004 | 59,908 | 109,499 |
| 1950 | 8,567 | 43,079 | 28,307 | 45,918 | 63,714 | 115,026 |
| 1951 | 8,687 | 43,115 | 30,297 | 46,251 | 71,199 | 117,450 |

* Trade List Department—Chilton Company. † Reduction in truck dealers caused by discontinuance of Plymouth truck production.

## Automotive Wholesale and Retail Outlets, by States†

### With Number of Motor Vehicles per Outlet

| STATE | Total Motor Vehicle Registrations | WHOLESALERS: Number of Wholesalers | WHOLESALERS: Motor Vehicles per Wholesaler | DEALERS: Passenger Car Dealers | DEALERS: Truck Dealers | DEALERS: Car and Truck Dealers | DEALERS: Motor Vehicles per Car and Truck Dealer | REPAIR SHOPS: Independent Repair Shops | REPAIR SHOPS: Motor Vehicles per Repair Shop | RETAIL OUTLETS: All Retail Stores | RETAIL OUTLETS: Motor Vehicles per Outlet |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alabama | 618,026 | 139 | 4,446 | 489 | 401 | 522 | 1,184 | 387 | 1,597 | 909 | 680 |
| Arizona | 262,375 | 72 | 3,644 | 229 | 174 | 248 | 1,058 | 518 | 507 | 766 | 343 |
| Arkansas | 435,040 | 137 | 3,175 | 548 | 421 | 581 | 749 | 645 | 674 | 1,226 | 355 |
| California | 4,557,893 | 760 | 5,997 | 2,143 | 1,429 | 2,287 | 1,993 | 7,158 | 637 | 9,445 | 483 |
| Colorado | 553,894 | 111 | 4,990 | 511 | 366 | 536 | 1,033 | 579 | 630 | 1,415 | 391 |
| Connecticut | 680,980 | 118 | 5,771 | 517 | 341 | 561 | 1,214 | 959 | 710 | 1,520 | 448 |
| Delaware | 98,472 | 22 | 4,476 | 100 | 68 | 107 | 920 | 272 | 362 | 379 | 260 |
| Dist. of Col. | 185,147 | 24 | 7,714 | 80 | 58 | 91 | 2,035 | 244 | 759 | 235 | 553 |
| Florida | 986,179 | 176 | 5,635 | 641 | 454 | 684 | 1,442 | 989 | 997 | 1,673 | 589 |
| Georgia | 895,242 | 166 | 5,393 | 737 | 570 | 785 | 1,140 | 575 | 1,557 | 1,360 | 658 |
| Idaho | 266,542 | 70 | 3,808 | 379 | 308 | 413 | 645 | 564 | 473 | 977 | 273 |
| Illinois | 2,616,000 | 476 | 5,496 | 2,508 | 1,691 | 2,726 | 960 | 4,217 | 620 | 6,943 | 377 |
| Indiana | 1,425,595 | 241 | 5,915 | 1,362 | 982 | 1,473 | 968 | 2,019 | 706 | 3,492 | 408 |
| Iowa | 1,056,090 | 223 | 4,736 | 1,393 | 1,051 | 1,509 | 700 | 1,497 | 705 | 3,006 | 351 |
| Kansas | 852,575 | 165 | 5,167 | 1,060 | 762 | 1,117 | 763 | 1,111 | 767 | 2,228 | 383 |
| Kentucky | 775,398 | 143 | 5,422 | 742 | 532 | 788 | 984 | 573 | 1,353 | 1,361 | 570 |
| Louisiana | 708,183 | 120 | 5,902 | 480 | 393 | 533 | 1,329 | 558 | 1,269 | 1,091 | 649 |
| Maine | 275,023 | 57 | 4,825 | 356 | 266 | 393 | 718 | 568 | 468 | 971 | 283 |
| Maryland | 653,631 | 101 | 6,472 | 495 | 329 | 527 | 1,240 | 1,042 | 627 | 1,569 | 417 |
| Massachusetts | 1,271,955 | 226 | 5,628 | 1,133 | 704 | 1,195 | 1,064 | 1,821 | 698 | 3,016 | 422 |
| Michigan | 2,405,461 | 326 | 7,379 | 1,760 | 1,152 | 1,892 | 1,271 | 3,091 | 778 | 4,983 | 483 |
| Minnesota | 1,136,507 | 159 | 7,148 | 1,477 | 1,165 | 1,641 | 693 | 2,005 | 566 | 3,646 | 312 |
| Mississippi | 445,630 | 104 | 4,228 | 511 | 406 | 543 | 828 | 231 | 1,946 | 774 | 581 |
| Missouri | 1,275,000 | 269 | 4,740 | 1,142 | 802 | 1,226 | 1,040 | 1,448 | 881 | 2,674 | 477 |
| Montana | 259,287 | 62 | 4,182 | 428 | 336 | 478 | 542 | 410 | 632 | 888 | 292 |
| Nebraska | 568,702 | 123 | 4,624 | 725 | 549 | 779 | 730 | 890 | 639 | 1,669 | 341 |
| Nevada | 74,796 | 17 | 4,400 | 101 | 77 | 109 | 687 | 176 | 425 | 285 | 262 |
| New Hampshire | 165,295 | 28 | 5,903 | 228 | 169 | 240 | 689 | 304 | 544 | 544 | 304 |
| New Jersey | 1,570,558 | 213 | 7,374 | 1,090 | 696 | 1,188 | 1,322 | 3,005 | 522 | 4,193 | 375 |
| New Mexico | 233,256 | 65 | 3,589 | 267 | 200 | 283 | 824 | 482 | 484 | 765 | 305 |
| New York | 3,612,325 | 562 | 6,428 | 2,719 | 1,752 | 2,925 | 1,235 | 7,336 | 492 | 10,261 | 352 |
| North Carolina | 1,041,032 | 209 | 4,981 | 865 | 580 | 907 | 1,148 | 806 | 1,292 | 1,713 | 608 |
| North Dakota | 273,274 | 51 | 5,358 | 486 | 399 | 520 | 525 | 450 | 607 | 970 | 282 |
| Ohio | 2,697,373 | 467 | 5,776 | 2,169 | 1,403 | 2,307 | 1,169 | 3,316 | 813 | 5,623 | 480 |
| Oklahoma | 820,931 | 203 | 4,044 | 929 | 660 | 976 | 841 | 1,132 | 725 | 2,108 | 389 |
| Oregon | 678,190 | 141 | 4,810 | 548 | 395 | 582 | 1,165 | 1,411 | 481 | 1,993 | 340 |
| Pennsylvania | 3,119,279 | 524 | 5,953 | 2,982 | 1,870 | 3,192 | 977 | 5,944 | 525 | 9,136 | 341 |
| Rhode Island | 247,149 | 35 | 7,833 | 181 | 101 | 191 | 1,294 | 459 | 538 | 650 | 380 |
| South Carolina | 559,836 | 93 | 6,020 | 419 | 290 | 434 | 1,290 | 375 | 1,493 | 809 | 692 |
| South Dakota | 286,281 | 44 | 6,506 | 470 | 371 | 505 | 567 | 421 | 680 | 926 | 309 |
| Tennessee | 803,271 | 148 | 5,428 | 705 | 496 | 745 | 1,078 | 802 | 1,002 | 1,547 | 519 |
| Texas | 2,929,245 | 555 | 5,278 | 2,691 | 1,900 | 2,911 | 1,006 | 3,839 | 763 | 6,750 | 434 |
| Utah | 243,184 | 78 | 3,118 | 266 | 206 | 289 | 841 | 574 | 424 | 863 | 282 |
| Vermont | 118,120 | 22 | 5,369 | 188 | 137 | 199 | 594 | 274 | 431 | 473 | 250 |
| Virginia | 877,483 | 128 | 7,312 | 823 | 578 | 867 | 1,012 | 899 | 976 | 1,766 | 497 |
| Washington | 913,200 | 192 | 4,756 | 743 | 540 | 802 | 1,139 | 2,003 | 456 | 2,805 | 326 |
| West Virginia | 427,214 | 97 | 4,404 | 607 | 474 | 658 | 649 | 799 | 535 | 1,457 | 293 |
| Wisconsin | 1,181,400 | 191 | 6,185 | 1,450 | 1,110 | 1,543 | 766 | 1,487 | 794 | 3,030 | 390 |
| Wyoming | 141,815 | 35 | 4,052 | 242 | 183 | 253 | 561 | 214 | 663 | 467 | 304 |
| Total | 48,283,335 | 8,687 | 5,558 | 43,115 | 30,297 | 46,251 | 1,044 | 71,199 | 678 | 117,450 | 411 |

† Trade List Department, Chilton Company, as of January, 1951.

# TOTAL REGISTRATIONS

## PASSENGER CARS • TRUCKS • BUSES

## U. S. Motor Vehicle Registrations, 1900-1950

| Year | PASSENGER CARS | | | TRUCKS AND BUSES | | | TOTAL VEHICLES | |
|---|---|---|---|---|---|---|---|---|
| | Units | Per Cent of Total | Per Cent Increase | Units | Per Cent of Total | Per Cent Increase | Units | Increase Per Cent |
| 1900 | 8,000 | .... | 150 | ..... | .... | .... | 8,000 | 150 |
| 1901 | 14,800 | .... | 85 | ..... | .... | .... | 14,800 | 85 |
| 1902 | 23,000 | .... | 55 | ..... | .... | .... | 23,000 | 65 |
| 1903 | 32,920 | .... | 43 | ..... | .... | .... | 32,920 | 43 |
| 1904 | 54,590 | 98.7 | 66 | 700 | 1.3 | 100 | 55,290 | 68 |
| 1905 | 77,400 | 98.2 | 42 | 1,400 | 1.8 | 100 | 78,800 | 43 |
| 1906 | 105,900 | 98.0 | 37 | 2,200 | 2.0 | 57 | 108,100 | 37 |
| 1907 | 140,300 | 98.0 | 33 | 2,900 | 2.0 | 32 | 143,200 | 32 |
| 1908 | 194,400 | 98.0 | 38 | 4,000 | 2.0 | 38 | 198,400 | 38 |
| 1909 | 305,950 | 98.1 | 57 | 6,050 | 1.9 | 51 | 312,000 | 57 |
| 1910 | 458,377 | 97.8 | 50 | 10,123 | 2.2 | 65 | 468,500 | 50 |
| 1911 | 618,727 | 96.8 | 35 | 20,773 | 3.2 | 105 | 639,500 | 36 |
| 1912 | 901,596 | 95.5 | 46 | 42,404 | 4.5 | 104 | 944,000 | 48 |
| 1913 | 1,190,393 | 94.6 | 32 | 67,667 | 5.4 | 60 | 1,258,060 | 33 |
| 1914 | 1,664,003 | 94.4 | 36 | 99,015 | 5.6 | 46 | 1,763,018 | 40 |
| 1915 | 2,332,426 | 93.6 | 42 | 158,506 | 6.4 | 60 | 2,490,932 | 41 |
| 1916 | 3,367,889 | 93.1 | 43 | 250,048 | 6.9 | 58 | 3,617,937 | 45 |
| 1917 | 4,727,468 | 92.4 | 42 | 391,057 | 7.6 | 56 | 5,118,525 | 41 |
| 1918 | 5,554,952 | 90.2 | 21 | 605,496 | 9.8 | 55 | 6,160,448 | 20 |
| 1919 | 6,679,133 | 88.2 | 21 | 897,755 | 11.8 | 48 | 7,576,888 | 23 |
| 1920 | 8,131,522 | 88.0 | 22 | 1,107,639 | 12.0 | 23 | 9,239,161 | 22 |
| 1921 | 9,212,158 | 87.8 | 14 | 1,281,508 | 12.2 | 16 | 10,493,666 | 11 |
| 1922 | 10,704,076 | 87.2 | 16 | 1,569,523 | 12.8 | 22 | 12,273,599 | 17 |
| 1923 | 13,253,019 | 87.8 | 24 | 1,849,086 | 12.2 | 18 | 15,102,105 | 23 |
| 1924 | 15,436,102 | 87.6 | 15 | 2,176,838 | 12.4 | 18 | 17,612,940 | 17 |
| 1925 | 17,439,701 | 87.5 | 13 | 2,501,023 | 12.5 | 15 | 19,940,724 | 13 |
| 1926 | 19,220,885 | 87.3 | 10 | 2,831,674 | 12.7 | 13 | 22,052,559 | 11 |
| 1927 | 20,142,120 | 87.2 | 5 | 2,997,439 | 12.8 | 6 | 23,139,559 | 5 |
| 1928 | 21,308,159 | 87.1 | 6 | 3,203,524 | 12.9 | 7 | 24,511,683 | 6 |
| 1929 | 23,060,421 | 87.1 | 8 | 3,442,087 | 12.9 | 7 | 26,502,508 | 8 |
| 1930 | 22,972,745 | 86.7 | —0.4 | 3,559,254 | 13.3 | 3.4 | 26,531,999 | 0.1 |
| 1931 | 22,420,629 | 86.3 | —2.4 | 3,573,267 | 13.7 | 0.4 | 25,993,896 | —2.0 |
| 1932 | 20,994,092 | 86.2 | —6.4 | 3,347,730 | 13.8 | —6.3 | 24,341,822 | —6.4 |
| 1933 | 20,557,493 | 86.2 | —2.1 | 3,292,439 | 13.8 | —1.7 | 23,849,932 | —2.0 |
| 1934 | 21,535,199 | 86.6 | 4.7 | 3,346,268 | 13.4 | 1.6 | 24,881,467 | 4.3 |
| 1935 | 22,513,715 | 86.1 | 4.5 | 3,644,997 | 13.9 | 8.9 | 26,158,712 | 5.1 |
| 1936 | 24,044,432 | 85.6 | 6.8 | 4,047,277 | 14.4 | 11.0 | 28,091,709 | 7.4 |
| 1937 | 25,356,786 | 85.5 | 5.5 | 4,292,484 | 14.5 | 6.1 | 29,649,270 | 5.5 |
| 1938 | 25,264,589 | 85.5 | —0.4 | 4,283,395 | 14.5 | —0.2 | 29,547,984 | —0.3 |
| 1939 | 26,147,798 | 85.3 | 3.5 | 4,496,770 | 14.7 | 5.0 | 30,644,568 | 3.7 |
| 1940 | 27,240,475 | 85.3 | 4.2 | 4,683,376 | 14.7 | 4.1 | 31,923,851 | 4.2 |
| 1941 | 29,240,417 | 85.6 | 7.3 | 4,911,990 | 14.4 | 4.9 | 34,152,407 | 7.0 |
| 1942 | 27,683,529 | 85.4 | —5.3 | 4,741,298 | 14.6 | —3.5 | 32,424,827 | —5.1 |
| 1943 | 25,841,215 | 84.7 | —6.7 | 4,657,882 | 15.3 | —1.8 | 30,499,097 | —6.0 |
| 1944 | 25,298,639 | 84.6 | —2.1 | 4,611,966 | 15.4 | —1.0 | 29,910,605 | —1.9 |
| 1945 | 25,398,824 | 83.5 | 0.4 | 5,025,233 | 16.5 | 9.0 | 30,424,057 | 1.7 |
| 1946 | 27,834,543 | 83.6 | 9.6 | 5,858,813 | 17.4 | 16.6 | 33,693,356 | 10.7 |
| 1947 | 30,482,007 | 81.8 | 9.6 | 6,754,256 | 18.2 | 15.4 | 37,236,263 | 10.6 |
| 1948 | 33,011,780 | 81.5 | 8.3 | 7,490,343 | 18.5 | 11.0 | 40,502,123 | 8.9 |
| 1949 | 36,235,930 | 82.3 | 9.8 | 7,770,852 | 17.7 | 3.7 | 44,006,782 | 8.6 |
| 1950 | 40,011,267 | 82.9 | 10.4 | 8,272,068 | 17.1 | 6.4 | 48,283,335 | 9.7 |

— Denotes decrease. Sources: Public Roads Administration through 1930; 1931 to 1950 Automotive Industries count.

# World and U. S. Registrations of Motor Vehicles

## World Registrations by Continental Divisions

Courtesy of The American Automobile (Overseas Edition) and El Automovil Americano.

| Continent | Passenger Cars 1950 | Passenger Cars 1949 | Trucks* 1950 | Trucks* 1949 | Buses* 1950 | Buses* 1949 | Total Motor Vehicles 1950 | Total Motor Vehicles 1949 |
|---|---|---|---|---|---|---|---|---|
| Europe | 6,305,322 | 6,366,778 | 5,121,355 | 5,154,942 | 236,135 | 255,802 | 12,255,113 | 11,872,022 |
| Asia† | 454,815 | 408,057 | 423,339 | 408,175 | 95,145 | 78,901 | 1,039,074 | 948,854 |
| Africa | 777,837 | 784,053 | 381,970 | 312,246 | 11,961 | 9,630 | 1,191,632 | 1,114,090 |
| Oceania | 1,242,972 | 1,080,684 | 570,702 | 527,380 | 9,030 | 6,423 | 1,831,114 | 1,616,979 |
| Americas (Less U. S. A.) | 2,864,298 | 2,618,679 | 1,385,602 | 1,159,516 | 70,399 | 80,504 | 4,320,321 | 3,916,987 |
| World Total (Less U. S. A.) | 11,645,245 | 11,258,251 | 5,882,968 | 7,562,259 | 422,670 | 431,260 | 20,637,255 | 19,468,932 |
| United States | 40,011,267 | 36,235,930 | 8,141,506 | 7,615,431 | 130,562 | 155,431 | 48,283,335 | 44,006,782 |
| World Total (including U. S. A.) | 51,656,512 | 47,494,181 | 14,024,474 | 15,177,690 | 553,232 | 586,781 | 68,920,590 | 63,475,714 |

* Details not available for all territories; therefore sum of cars, trucks and buses is less than total Motor Vehicles. † Partly estimated, no complete report possible.

## Total U. S. Motor Vehicle Registrations by States, 1950-1949

As of the End of the Registration Year

| State | Passenger Cars[1] 1950 | Passenger Cars[1] 1949 | Trucks 1950 | Trucks 1949 | Buses 1950 | Buses 1949 | Total Motor Vehicles 1950 | Total Motor Vehicles 1949 | Per Cent of Total 1950 | Per Cent of Total 1949 |
|---|---|---|---|---|---|---|---|---|---|---|
| Alabama | 464,510 | 406,261 | 151,700 | 138,062 | 1,816 | 2,038 | 618,026 | 546,361 | 1.28 | 1.24 |
| Arizona | 203,890 | 180,869 | 58,200 | 52,978 | 685 | 945[5] | 262,375 | 234,792 | .54 | .53 |
| Arkansas | 290,957 | 281,253 | 140,388 | 121,413[6] | 3,695 | 1,201[6] | 435,040 | 403,867 | .90 | .92 |
| California | 4,076,084[4] | 3,678,322[4] | 481,809[3] | 415,958 | (2) | 6,911 | 4,557,893 | 4,101,191 | 9.45 | 9.32 |
| Colorado | 422,595 | 383,140 | 131,299 | 124,709 | (2) | (2) | 553,894 | 507,849 | 1.15 | 1.15 |
| Connecticut | 592,038 | 539,765 | 85,903 | 77,716 | 2,989 | 2,770 | 680,930 | 620,251 | 1.41 | 1.41 |
| Delaware | 79,874 | 72,639 | 18,599 | 17,682 | (2) | (2) | 98,473 | 90,317 | .20 | .21 |
| District of Columbia | 164,811 | 151,787 | 18,372 | 18,389 | 1,964 | 2,113 | 185,147 | 172,289 | .38 | .39 |
| Florida | 805,001 | 698,332 | 175,240 | 165,307 | 5,938 | 3,785 | 986,179 | 867,474 | 2.04 | 1.97 |
| Georgia | 692,272 | 614,299 | 197,871 | 178,479 | 5,099 | 4,900 | 895,242 | 797,678 | 1.85 | 1.81 |
| Idaho | 195,520 | 174,058 | 71,022 | 64,137 | (2) | 14 | 266,542 | 238,209 | .55 | .54 |
| Illinois | 2,266,000 | 2,078,533 | 350,000 | 336,174 | ... | ... | 2,616,000 | 2,414,757 | 5.42 | 5.49 |
| Indiana | 1,173,627 | 1,090,153 | 244,258[5] | 206,154 | 7,710 | 7,653 | 1,425,595 | 1,303,960 | 2.95 | 2.96 |
| Iowa | 876,255 | 805,540 | 179,835 | 168,302 | (2) | (2) | 1,056,090 | 973,842 | 2.19 | 2.21 |
| Kansas | 646,853 | 613,965 | 203,722 | 195,449 | (2) | (2) | 852,575 | 814,414 | 1.77 | 1.85 |
| Kentucky | 604,244 | 527,717 | 169,248 | 154,941 | 1,906 | (2) | 775,398 | 682,658 | 1.61 | 1.55 |
| Louisiana | 552,787 | 469,526 | 151,749 | 140,001 | 3,547 | 3,576 | 708,183 | 613,103 | 1.47 | 1.39 |
| Maine | 210,434 | 186,771 | 64,195 | 59,894 | 394 | 417 | 275,023 | 247,082 | .57 | .56 |
| Maryland | 556,589 | 510,800 | 93,186 | 92,200 | 3,856 | 4,250 | 653,631 | 607,250 | 1.35 | 1.38 |
| Massachusetts | 1,100,674 | 1,010,185 | 165,850 | 153,208 | 5,431 | 5,822 | 1,271,955 | 1,169,215 | 2.63 | 2.66 |
| Michigan | 2,110,636 | 1,913,694 | 294,825 | 270,309 | (2) | (2) | 2,405,461 | 2,184,003 | 4.98 | 4.96 |
| Minnesota | 944,272 | 875,538 | 188,990 | 162,532 | 3,245 | 371 | 1,136,507 | 1,038,441 | 2.35 | 2.41 |
| Mississippi | 306,064 | 276,041 | 139,442 | 123,954 | 4,124 | 3,894 | 449,630 | 403,889 | .93 | .92 |
| Missouri | 1,013,000 | 943,839 | 257,000 | 237,458 | 5,000 | 4,650 | 1,275,000 | 1,185,947 | 2.64 | 2.69 |
| Montana | 178,954 | 163,991 | 80,322 | 76,476 | (2) | (2) | 259,287 | 240,467 | .54 | .55 |
| Nebraska | 442,178 | 420,896 | 125,447 | 119,473 | 1,077 | 856 | 568,702 | 541,225 | 1.18 | 1.23 |
| Nevada | 58,773 | 52,175 | 16,023 | 14,611 | (2) | (2) | 74,796 | 66,786 | .15 | .15 |
| New Hampshire | 134,242 | 125,802 | 30,953 | 36,214 | (2) | (2) | 165,295 | 162,017 | .34 | .37 |
| New Jersey | 1,343,888 | 1,208,787 | 230,085 | 199,920 | 6,585 | 10,689 | 1,570,558 | 1,419,396 | 3.26 | 3.23 |
| New Mexico | 172,653 | 146,149 | 59,597 | 52,564 | 1,006 | 1,015 | 233,256 | 199,728 | .48 | .45 |
| New York | 3,152,006 | 2,825,041 | 449,158 | 493,868 | 11,161 | 11,513 | 3,612,325 | 3,330,422 | 7.48 | 7.57 |
| North Carolina | 830,925 | 713,195 | 201,881 | 177,742 | 8,226 | 8,708 | 1,041,032 | 899,645 | 2.16 | 2.04 |
| North Dakota | 191,206 | 179,535 | 81,967 | 77,804 | 101 | 95 | 273,274 | 257,434 | .57 | .58 |
| Ohio | 2,366,114 | 2,134,806 | 327,359 | 304,801 | 3,900 | 11,008 | 2,697,373 | 2,500,615 | 5.59 | 5.68 |
| Oklahoma | 618,073 | 558,992 | 201,160 | 183,435 | 1,698 | 6,200 | 820,931 | 748,627 | 1.70 | 1.70 |
| Oregon | 545,959 | 496,326 | 130,979 | 123,987 | 1,252 | 1,192 | 678,190 | 621,415 | 1.40 | 1.41 |
| Pennsylvania | 2,646,096 | 2,344,192 | 460,747 | 452,867 | 12,436 | 12,338 | 3,119,279 | 2,809,397 | 6.47 | 6.38 |
| Rhode Island | 215,718 | 201,131 | 30,828 | 30,181 | 603 | 616 | 247,149 | 231,928 | .51 | .53 |
| South Carolina | 445,962 | 395,870 | 100,367 | 100,633 | 4,507 | 4,369 | 559,836 | 500,872 | 1.16 | 1.14 |
| South Dakota | 215,084 | 202,249 | 74,388 | 66,656 | 309 | 310 | 286,281 | 269,215 | .59 | .61 |
| Tennessee | 639,335 | 569,328 | 163,946 | 153,177 | ... | 2,800 | 803,271 | 725,305 | 1.66 | 1.65 |
| Texas | 2,311,284 | 2,045,543 | 611,176 | 549,520 | 6,785 | 12,944 | 2,929,245 | 2,608,007 | 6.07 | 5.93 |
| Utah | 196,614 | 177,167 | 46,117 | 42,308 | 453 | 629 | 243,184 | 220,104 | .50 | .50 |
| Vermont | 103,050 | 99,332 | 14,911 | 15,023 | 159 | 171 | 118,120 | 114,526 | .24 | .26 |
| Virginia | 715,620 | 671,232 | 159,413 | 153,616 | 2,450 | 4,878 | 877,483 | 829,726 | 1.82 | 1.89 |
| Washington | 751,300 | 679,149 | 165,000 | 162,980 | 6,400 | 6,280 | 913,200 | 838,409 | 1.89 | 1.91 |
| West Virginia | 324,516 | 296,537 | 101,361 | 96,831 | 1,337 | 1,235 | 427,214 | 394,603 | .88 | .90 |
| Wisconsin | 957,414 | 895,175 | 221,368 | 210,069 | 2,618 | 2,265 | 1,181,400 | 1,107,509 | 2.46 | 2.52 |
| Wyoming | 103,176 | 95,306 | 35,839 | 35,358 | (2) | (2) | 141,815 | 130,564 | .29 | .30 |
| Total | 40,011,267 | 36,235,930 | 8,141,506 | 7,615,431 | 130,562 | 155,421 | 48,283,335 | 44,006,782 | 100.00 | 100.00 |

[1] Includes taxicabs. [2] Included with trucks. [3] Included with passenger cars. [4] Includes over 150,000 light commercial vehicles registered as passenger cars. [5] Includes tractors. [6] Due to change in registration period for trucks and buses, these figures represent registrations for six month period only.

**Note:** In the above tabulation we have endeavored to make as accurate a count as existing conditions permit. This census is compiled from material secured direct from the state motor vehicle commissioners. Wherever possible, duplications, occasioned by transfers and non-resident registrations, have been eliminated. Data are for the registration year rather than the calendar year, even though this necessitates partial estimates, in the case of those states whose registration year ends February or March of the following year.

# • TOTAL REGISTRATIONS •

## Estimated Scrappage of Motor Vehicles

| Year | Passenger Cars | Trucks | Total Motor Vehicles | Year | Passenger Cars | Trucks | Total Motor Vehicles |
|---|---|---|---|---|---|---|---|
| 1928 | 1,973,540 | 135,038 | 2,108,578 | 1940 | 2,323,228 | 372,544 | 2,695,772 |
| 1929 | 2,127,944 | 288,494 | 2,416,438 | 1941 | 1,731,224 | 412,083 | 2,143,307 |
| 1930 | 2,713,655 | 393,532 | 3,007,187 | 1942† | 1,861,579 | 248,114 | 2,109,693 |
| 1931 | 2,460,257 | 299,871 | 2,760,128 | 1943† | 2,048,119 | 145,885 | 2,194,004 |
| 1932 | 2,522,936 | 405,950 | 2,928,886 | 1944† | 608,306 | 167,185 | 77-,491 |
| 1933 | 1,930,393 | 301,160 | 2,231,553 | 1945† | +28,308 | +62,335 | +90,643 |
| 1934 | 910,851 | 350,057 | 1,260,908 | 1946† | +620,523 | +208,331 | +828,854 |
| 1935 | 1,765,392 | 211,954 | 1,977,346 | 1947 | 519,767 | +16,311 | 503,456 |
| 1936 | 1,873,780 | 209,364 | 2,083,144 | 1948 | 963,444 | 320,718 | 1,284,162 |
| 1937 | 2,171,398 | 373,042 | 2,544,440 | 1949 | 1,611,927 | 658,821 | 2,270,748 |
| 1938 | 1,983,218 | 374,438 | 2,357,656 | 1950* | 2,551,000 | 641,000 | 3,192,000 |
| 1939 | 1,770,168 | 273,373 | 2,043,541 | | | | |

† The actual computations for the years 1942 through 1946 give unrealistic scrappage estimates for these years because of the cars and trucks being placed in storage during 1942 and then being returned to service at the end of the war.
+ Indicates the increase in number of registrations over the number of new vehicles sold.
* Preliminary data.
These estimated scrappage data were computed from total registrations of cars and trucks as compiled by Automotive Industries and new registrations of cars and trucks as reported by R. L. Polk & Co.

## Ranking of the States According to Total Registrations

| Rank | State | Registrations Units | % of Total | Rank | State | Registrations Units | % of Total | Rank | State | Registrations Units | % of Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | California | 4,557,893 | 9.45 | 18 | Georgia | 895,242 | 1.85 | 35 | South Dakota | 286,281 | .59 |
| 2 | New York | 3,612,325 | 7.48 | 19 | Virginia | 877,483 | 1.82 | 36 | Maine | 275,023 | .57 |
| 3 | Pennsylvania | 3,119,279 | 6.47 | 20 | Kansas | 852,575 | 1.77 | 37 | North Dakota | 273,274 | .57 |
| 4 | Texas | 2,929,245 | 6.07 | 21 | Oklahoma | 820,931 | 1.70 | 38 | Idaho | 266,542 | .55 |
| 5 | Ohio | 2,697,373 | 5.59 | 22 | Tennessee | 803,271 | 1.66 | 39 | Arizona | 262,375 | .54 |
| 6 | Illinois | 2,616,000 | 5.42 | 23 | Kentucky | 775,398 | 1.61 | 40 | Montana | 259,287 | .54 |
| 7 | Michigan | 2,405,461 | 4.98 | 24 | Louisiana | 708,183 | 1.47 | 41 | Rhode Island | 247,149 | .51 |
| 8 | New Jersey | 1,570,558 | 3.26 | 25 | Connecticut | 680,980 | 1.41 | 42 | Utah | 243,184 | .50 |
| 9 | Indiana | 1,425,595 | 2.95 | 26 | Oregon | 678,190 | 1.40 | 43 | New Mexico | 233,256 | .48 |
| 10 | Missouri | 1,275,000 | 2.64 | 27 | Maryland | 653,631 | 1.35 | 44 | Dist. of Col. | 185,147 | .38 |
| 11 | Massachusetts | 1,271,955 | 2.63 | 28 | Alabama | 618,026 | 1.28 | 45 | New Hampshire | 165,295 | .34 |
| 12 | Wisconsin | 1,181,400 | 2.46 | 29 | Nebraska | 568,702 | 1.18 | 46 | Wyoming | 141,815 | .29 |
| 13 | Minnesota | 1,136,507 | 2.35 | 30 | South Carolina | 559,836 | 1.16 | 47 | Vermont | 118,120 | .24 |
| 14 | Iowa | 1,056,090 | 2.19 | 31 | Colorado | 553,894 | 1.15 | 48 | Delaware | 98,473 | .20 |
| 15 | North Carolina | 1,041,032 | 2.16 | 32 | Mississippi | 449,630 | .93 | 49 | Nevada | 74,796 | .15 |
| 16 | Florida | 986,179 | 2.04 | 33 | Arkansas | 435,040 | .90 | | | | |
| 17 | Washington | 913,200 | 1.89 | 34 | West Virginia | 427,214 | .88 | | Total | 48,283,335 | 100.00 |

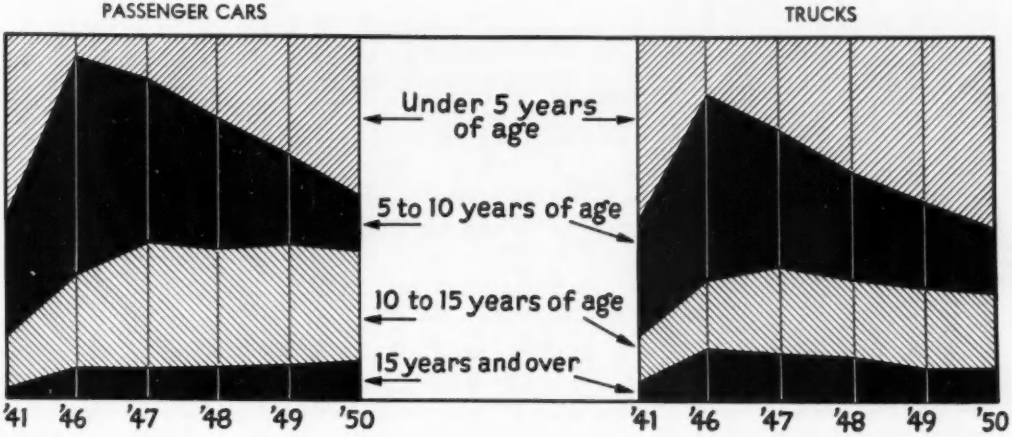
## Taxicab, Motorcycle and Trailer Registrations, 1950-1949

| State | Taxicabs† 1950 | Taxicabs† 1949 | Motorcycles 1950 | Motorcycles 1949 | Trailers and Semi-Trailers: Tourist 1950 | Trailers and Semi-Trailers: Commercial 1950 | Trailers and Semi-Trailers: Total Trailers 1950 | Trailers and Semi-Trailers: Total Trailers 1949 |
|---|---|---|---|---|---|---|---|---|
| Alabama | 2,914 | 3,245 | 7,695 | 8,121 | | | 10,853 | 9,075 |
| Arizona | 190 | ... | 3,650 | 3,547 | 12,800 | 9,200 | 22,000 | 21,011 |
| Arkansas | 921 | 1,037 | 2,350 | 2,903 | ... | ... | 24,677 | 17,395 |
| California | (1) | 6,856 | 54,948 | 57,475 | | | 363,055 | 355,575 |
| Colorado | (2) | (2) | 4,603 | 4,749 | | | 22,136 | 19,842 |
| Connecticut | 711 | 538 | 3,635 | 3,885 | 605,347 | 4,553 | 609,900 | 19,285 |
| Delaware | (2) | (2) | 568 | 619 | ... | ... | 3,714 | 3,705 |
| District of Columbia | 10,121 | 9,225 | 831 | 865 | ... | 1,567 | 1,567 | 1,576 |
| Florida | 9,391 | 8,679 | 15,682 | 16,316 | 69,523 | 11,034 | 80,557 | 98,149 |
| Georgia | ... | ... | 8,292 | 9,120 | 19,716 | 10,048 | 29,764 | 28,259 |
| Idaho | 238 | 284 | 2,764 | 2,987 | 34,903 | 570 | 35,473 | 32,607 |
| Illinois | 10,200 | 10,040 | 29,000 | 28,523 | ... | ... | 57,000 | 56,453 |
| Indiana | (2) | (2) | 20,916 | 22,846 | 99,439 | 21,097 | 120,536 | 132,544 |
| Iowa | (2) | (2) | 11,500 | 11,742 | ... | ... | 120,550 | 141,122 |
| Kansas | ... | ... | 8,113 | 8,858 | ... | ... | 15,694 | 17,374 |
| Kentucky | (2) | (2) | 7,547 | 8,374 | ... | ... | ... | ... |
| Louisiana | 3,650 | 3,856 | 6,276 | 7,175 | 1,964 | 30,699 | 32,663 | 35,078 |
| Maine | 1,195 | 1,210 | 2,581 | 2,697 | ... | ... | 20,241 | 18,309 |
| Maryland | 2,599 | 2,800 | 6,120 | 7,100 | ... | ... | 14,453 | 14,000 |
| Massachusetts | (3) | (3) | 5,563 | 6,228 | ... | ... | 50,236 | 48,138 |
| Michigan | (1) | (1) | 19,569 | 15,569 | 14,545 | 218,681 | 233,226 | 230,085 |
| Minnesota | ... | ... | 11,508 | 12,272 | 4,612 | 87,893 | 92,505 | 58,274 |
| Mississippi | 2,284 | 2,658 | 2,420 | 2,805 | 12,303 | 7,251 | 19,554 | 18,609 |
| Missouri | (2) | (2) | 9,750 | 9,500 | ... | ... | 82,500 | 82,000 |
| Montana | ... | ... | 1,223 | 1,366 | ... | ... | 6,908 | 6,659 |
| Nebraska | 546 | 645 | 4,871 | 6,139 | 4,250 | 8,408 | 12,658 | 11,839 |
| Nevada | ... | ... | 572 | 579 | ... | ... | 4,563 | 4,229 |
| New Hampshire | (3) | (3) | 1,874 | 2,087 | ... | ... | 9,777 | 9,466 |
| New Jersey | 3,235 | 3,352 | 9,438 | 9,928 | ... | ... | 25,778 | 23,867 |
| New Mexico | 1,032 | 1,066 | 2,567 | 2,474 | ... | ... | 6,471 | 5,672 |
| New York | 24,141 | 25,201 | 24,733 | 25,449 | ... | ... | 110,314 | 105,005 |
| North Carolina | 4,637 | 5,454 | 11,590 | 13,671 | ... | ... | 73,678 | 73,601 |
| North Dakota | (2) | (2) | 1,350 | 1,223 | 2,558 | 213 | 2,771 | 2,000 |
| Ohio | (2) | (2) | 24,125 | 24,754 | ... | ... | 192,033 | 189,976 |
| Oklahoma | 2,490 | 2,649 | 7,240 | 7,715 | 2,245 | 11,599 | 13,844 | 12,881 |
| Oregon | (2) | (2) | 7,742 | 7,373 | 11,193 | 11,823 | 23,016 | 21,435 |
| Pennsylvania | (3) | (3) | 27,564 | 30,971 | ... | ... | 88,799 | 83,042 |
| Rhode Island | 347 | 358 | 1,728 | 1,821 | ... | ... | 4,487 | 3,870 |
| South Carolina | 2,545 | 3,533 | 6,438 | 7,339 | ... | ... | 11,118 | 11,056 |
| South Dakota | (2) | (2) | 1,978 | 2,117 | ... | ... | 32,526 | 31,238 |
| Tennessee | 5,517 | 6,600 | 7,512 | 7,200 | ... | ... | ... | ... |
| Texas | (2) | (2) | 27,164 | 31,000 | 21,759 | 113,481 | 135,240 | 117,000 |
| Utah | (1) | (1) | 1,596 | 1,825 | ... | ... | 1,791 | 1,520 |
| Vermont | (3) | (3) | 937 | 1,010 | ... | ... | 6,173 | 5,955 |
| Virginia | 5,229 | 4,245 | 10,747 | 11,152 | ... | ... | 34,208 | 32,073 |
| Washington | 1,800 | 1,868 | 16,000 | 7,283 | 6,500 | 2,200 | 8,700 | 57,983 |
| West Virginia | 1,100 | 773 | 3,079 | 3,813 | 7,086 | 1,566 | 8,652 | 9,038 |
| Wisconsin | (2) | (2) | 10,152 | 10,777 | 4,164 | 11,476 | 15,640 | 13,337 |
| Wyoming | (2) | (2) | 2,000 | 1,226 | ... | ... | 15,490 | 14,619 |
| Total | 97,373 | 106,172 | 459,501 | 474,564 | 934,907 | 563,359 | 2,907,489 | 2,305,328 |

† Taxicab registrations have been included with the passenger car and truck registrations shown on opposite page. [1] Included with trucks. [2] Included with passenger cars. [3] Included with buses.

# • TOTAL REGISTRATIONS •

## 52% OF CARS IN USE ARE PREWAR MODELS




## Number and Per Cent of Cars in Use, by Age Groups*

| Age in Years | 1950 Units | 1950 % of Total Simple | 1950 % of Total Cumul. | 1949 Units | 1949 % of Total Simple | 1949 Cumul. | 1948 Units | 1948 % of Total Simple | 1948 Cumul. | 1947 Units | 1947 % of Total Simple | 1947 Cumul. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Under 1 | 2,988,755 | 8.34 | 8.34 | 2,638,026 | 8.09 | 8.09 | 1,673,487 | 5.63 | 5.63 | 1,367,295 | 5.01 | 5.01 |
| 1-2 | 4,934,895 | 13.78 | 22.12 | 2,980,927 | 9.14 | 17.23 | 3,100,367 | 10.43 | 16.06 | 2,056,130 | 7.54 | 12.55 |
| 2-3 | 3,033,107 | 8.47 | 30.59 | 3,065,637 | 9.40 | 26.63 | 2,048,095 | 6.89 | 22.95 | ..... | ..... | ..... |
| 3-4 | 3,052,019 | 8.52 | 39.11 | 2,046,674 | 6.27 | 32.90 | ..... | ..... | ..... | ..... | ..... | ..... |
| 4-5 | 2,032,478 | 5.67 | 44.78 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 5-6 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,065,326 | 3.90 | 16.45 |
| 6-7 | ..... | ..... | ..... | ..... | ..... | ..... | 1,012,305 | 3.41 | 26.36 | 4,085,413 | 14.97 | 31.42 |
| 7-8 | ..... | ..... | ..... | 1,006,337 | 3.09 | 35.99 | 4,044,717 | 13.48 | 39.84 | 3,113,260 | 11.41 | 42.83 |
| 8-9 | 998,669 | 2.79 | 47.57 | 4,064,581 | 12.23 | 48.27 | 3,093,315 | 10.41 | 50.25 | 2,378,798 | 8.72 | 51.55 |
| 9-10 | 3,954,540 | 11.04 | 58.61 | 3,039,109 | 9.47 | 57.74 | 2,345,276 | 7.89 | 58.14 | 1,679,027 | 6.16 | 57.70 |
| 10-11 | 3,033,187 | 8.47 | 67.08 | 2,326,487 | 7.13 | 64.87 | 1,661,648 | 5.59 | 63.72 | 3,303,955 | 12.11 | 69.81 |
| 11-12 | 2,244,564 | 6.26 | 73.34 | 1,621,176 | 4.97 | 69.84 | 3,186,089 | 10.72 | 74.45 | 2,789,570 | 10.22 | 80.03 |
| 12-13 | 1,489,681 | 4.16 | 77.50 | 3,074,764 | 9.43 | 79.27 | 2,657,338 | 8.94 | 83.39 | 1,592,404 | 5.84 | 85.87 |
| 13-14 | 2,709,388 | 7.56 | 85.06 | 2,495,486 | 7.65 | 86.92 | 1,489,556 | 5.01 | 88.40 | 967,340 | 3.55 | 89.42 |
| 14-15 | 2,074,556 | 5.79 | 90.85 | 1,324,612 | 4.09 | 91.01 | 885,957 | 2.98 | 91.38 | 567,768 | 2.08 | 91.50 |
| 15-16 | 1,052,918 | 2.94 | 93.79 | 762,086 | 2.34 | 93.35 | 508,667 | 1.71 | 93.09 | 345,826 | 1.27 | 92.77 |
| 16-17 | 567,062 | 1.58 | 95.37 | 434,763 | 1.33 | 94.68 | 316,956 | 1.07 | 94.16 | 596,039 | 2.18 | 94.95 |
| 17 and older | 1,656,896 | 4.63 | ..... | 1,737,780 | 5.32 | ..... | 1,731,288 | 5.84 | ..... | 1,377,057 | 5.05 | ..... |
| Total | 35,822,715 | 100.00 | 100.00 | 32,618,445 | 100.00 | 100.00 | 29,715,061 | 100.00 | 100.00 | 27,285,218 | 100.00 | 100.00 |
| Age not known | 99,571 | ..... | ..... | 112,273 | ..... | ..... | 252,658 | ..... | ..... | 236,177 | ..... | ..... |
| Total in use | 35,922,286 | ..... | ..... | 32,730,718 | ..... | ..... | 29,967,719 | ..... | ..... | 27,521,395 | ..... | ..... |
| Average age of known models | 7.81 yrs. | | | 8.44 yrs. | | | 8.73 yrs. | | | 8.91 yrs. | | |

* Based on data from Reuben H. Donnelley Corp. as of July 1 of each year.

## Number and Per Cent of Trucks in Use, by Age Groups†

| Age in Years | 1950 Units | 1950 % of Total Simple | 1950 % of Total Cumul. | 1949 Units | 1949 % of Total Simple | 1949 Cumul. | 1948 Units | 1948 % of Total Simple | 1948 Cumul. | 1947 Units | 1947 % of Total Simple | 1947 Cumul. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Under 1 | 549,909 | 7.31 | 7.31 | 468,471 | 6.70 | 6.70 | 525,189 | 8.06 | 8.06 | 366,847 | 6.27 | 6.27 |
| 1-2 | 942,603 | 12.53 | 19.84 | 983,653 | 14.06 | 20.76 | 832,635 | 12.79 | 20.85 | 785,853 | 13.44 | 19.71 |
| 2-3 | 983,383 | 13.07 | 32.91 | 824,162 | 11.78 | 32.54 | 769,516 | 11.82 | 32.67 | 188,901 | 3.23 | 22.94 |
| 3-4 | 810,705 | 10.77 | 43.68 | 757,071 | 10.82 | 43.36 | 185,614 | 2.85 | 35.52 | 89,542 | 1.53 | 24.47 |
| 4-5 | 742,735 | 9.87 | 53.56 | 173,416 | 2.48 | 45.84 | 85,481 | 1.31 | 36.83 | 25,020 | .43 | 24.90 |
| 5-6 | 166,019 | 2.21 | 55.76 | 78,436 | 1.12 | 46.96 | 26,456 | .41 | 37.24 | 310,574 | 5.31 | 30.21 |
| 6-7 | 72,979 | .98 | 56.74 | 24,653 | .35 | 47.31 | 297,128 | 4.56 | 41.80 | 690,221 | 11.80 | 42.01 |
| 7-8 | 23,632 | .31 | 57.05 | 279,870 | 4.00 | 51.31 | 661,726 | 10.16 | 51.96 | 511,994 | 8.76 | 50.77 |
| 8-9 | 264,297 | 3.51 | 60.56 | 629,246 | 8.99 | 60.30 | 490,969 | 7.54 | 59.50 | 405,417 | 6.93 | 57.70 |
| 9-10 | 586,264 | 7.79 | 68.35 | 459,529 | 6.57 | 66.87 | 385,731 | 5.92 | 65.42 | 302,366 | 5.17 | 62.87 |
| 10-11 | 429,734 | 5.71 | 74.06 | 358,675 | 5.13 | 72.00 | 285,537 | 4.38 | 69.80 | 496,104 | 8.48 | 71.35 |
| 11-12 | 326,111 | 4.33 | 78.39 | 261,282 | 3.73 | 75.73 | 461,843 | 7.09 | 76.89 | 451,460 | 7.72 | 79.07 |
| 12-13 | 231,091 | 3.07 | 81.46 | 419,275 | 5.99 | 81.72 | 418,478 | 6.43 | 83.32 | 281,566 | 4.82 | 83.89 |
| 13-14 | 364,745 | 4.85 | 86.31 | 372,740 | 5.33 | 87.05 | 257,376 | 3.95 | 87.27 | 202,399 | 3.47 | 87.36 |
| 14-15 | 315,551 | 4.19 | 90.50 | 224,843 | 3.21 | 90.26 | 828,286* | 12.73 | ..... | 738,457* | 12.64 | ..... |
| 15-16 | 184,506 | 2.45 | 92.95 | 153,335 | 2.19 | 92.45 | ..... | ..... | ..... | ..... | ..... | ..... |
| 16-17 | 121,313 | 1.62 | 94.57 | 71,024 | 1.02 | 93.47 | ..... | ..... | ..... | ..... | ..... | ..... |
| 17 and older | 408,316 | 5.43 | ..... | 456,641 | 6.53 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total | 7,524,884 | 100.00 | 100.00 | 6,996,322 | 100.00 | 100.00 | 6,511,965 | 100.00 | 100.00 | 5,846,912 | 100.00 | 100.00 |
| Age not known | 52,153 | ..... | ..... | 90,806 | ..... | ..... | 93,325 | ..... | ..... | 85,469 | ..... | ..... |
| Total in use | 7,577,037 | ..... | ..... | 7,087,128 | ..... | ..... | 6,605,290 | ..... | ..... | 5,932,381 | ..... | ..... |
| Average age of known models | 6.96 yrs. | | | 7.35 yrs. | | | 7.43 yrs. | | | 7.86 yrs. | | |

# CARS IN USE BY MAKES,

| Model | Yr. | Ala. | Ariz. | Ark. | Calif. | Colo. | Conn. | Del. | D. C. | Fla. | Ga. | Idaho | Ill. | Ind. | Iowa | Kan. | Ky. | La. | Me. | Md. | Mass. | Mich. | Minn. | Miss. | Mo. | Mont. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BUICK | '50 | 3974 | 1419 | 1974 | 21316 | 3179 | 4813 | 767 | 1941 | 6043 | 6420 | 1652 | 21422 | 8968 | 6587 | 4771 | 3030 | 4944 | 1248 | 4319 | 7626 | 19985 | 7384 | 2665 | 6189 | 1148 |
| | '49 | 2752 | 1175 | 1838 | 22445 | 2929 | 5048 | 794 | 1850 | 6304 | 4641 | 1523 | 24217 | 8484 | 5745 | 4290 | 3881 | 4612 | 1420 | 4464 | 10110 | 23093 | 5598 | 2329 | 6110 | 1312 |
| | '48 | 1538 | 905 | 952 | 20654 | 1852 | 3386 | 507 | 1254 | 3976 | 2879 | 901 | 19953 | 5839 | 3457 | 2565 | 2341 | 2360 | 963 | 2850 | 6404 | 13725 | 4089 | 1206 | 4276 | 783 |
| | '47 | 1949 | 1158 | 1148 | 20589 | 2375 | 4067 | 628 | 1627 | 5446 | 3431 | 1054 | 20039 | 7160 | 3778 | 2997 | 2723 | 2994 | 1127 | 3525 | 8014 | 13300 | 4120 | 1511 | 4897 | 869 |
| | '46 | 1197 | 760 | 663 | 13444 | 1344 | 2466 | 360 | 981 | 3145 | 1845 | 591 | 11122 | 4103 | 2140 | 1658 | 1675 | 1648 | 665 | 2025 | 4381 | 7076 | 2283 | 820 | 2820 | 509 |
| | '45-'42 | 1044 | 538 | 440 | 8511 | 914 | 1390 | 174 | 442 | 2143 | 1254 | 418 | 9707 | 2254 | 1239 | 1084 | 1023 | 1237 | 389 | 977 | 2258 | 3875 | 1428 | 692 | 1694 | 260 |
| | '41 | 3372 | 2084 | 1569 | 40989 | 3842 | 6366 | 838 | 2320 | 8582 | 4445 | 1525 | 23428 | 10209 | 4903 | 4329 | 3964 | 4344 | 1565 | 4723 | 10400 | 17156 | 5764 | 2128 | 6985 | 1174 |
| | '40 | 2161 | 1331 | 981 | 34475 | 2649 | 5478 | 707 | 1705 | 5805 | 2792 | 1026 | 17113 | 6962 | 3746 | 2830 | 2836 | 2494 | 1582 | 3975 | 9700 | 11665 | 4650 | 1285 | 5104 | 782 |
| | '39 | 1499 | 893 | 737 | 23537 | 1867 | 4096 | 521 | 935 | 3649 | 1930 | 618 | 11397 | 4173 | 2962 | 2064 | 1879 | 1735 | 1068 | 2925 | 6579 | 6613 | 3516 | 876 | 3593 | 606 |
| | '38 | 920 | 722 | 454 | 17815 | 1358 | 3395 | 374 | 732 | 2576 | 1298 | 444 | 8252 | 3028 | 2193 | 1408 | 1278 | 1022 | 883 | 2101 | 4702 | 4550 | 2618 | 489 | 2845 | 413 |
| | '37 | 863 | 611 | 536 | 22213 | 1870 | 4353 | 474 | 603 | 2720 | 1216 | 577 | 9621 | 4011 | 2560 | 1823 | 1682 | 928 | 1068 | 2885 | 5800 | 7226 | 3072 | 528 | 3184 | 520 |
| | '36 | 484 | 527 | 296 | 16136 | 1256 | 2554 | 274 | 304 | 1604 | 748 | 318 | 5412 | 2202 | 1582 | 1127 | 973 | 685 | 807 | 1535 | 4200 | 3134 | 2063 | 273 | 1690 | 329 |
| | '35 | 116 | 115 | 65 | 5573 | 242 | 555 | 80 | 54 | 382 | 186 | 84 | 1087 | 732 | 447 | 310 | 210 | 100 | 209 | 340 | 851 | 553 | 583 | 67 | 447 | 51 |
| | '34 | 68 | 94 | 53 | 3009 | 204 | 517 | 64 | 45 | 274 | 125 | 41 | 687 | 334 | 243 | 208 | 179 | 69 | 212 | 304 | 859 | 380 | 423 | 48 | 340 | 37 |
| | Before '34 | 138 | 312 | 106 | 12011 | 679 | 1324 | 120 | 93 | 802 | 307 | 227 | 2113 | 831 | 1143 | 843 | 420 | 155 | 503 | 678 | 1621 | 1154 | 1350 | 107 | 1158 | 165 |
| | Unid.* | 29 | 75 | 134 | 27 | 17 | 114 | 20 | 791 | 106 | 303 | 3 | 333 | 31 | 21 | 26 | 19 | 174 | 6 | 116 | 27 | 919 | 5 | 67 | 160 | 2 |
| | Total | 22079 | 13029 | 11838 | 281724 | 28581 | 49922 | 6872 | 15797 | 53237 | 33816 | 10969 | 177401 | 69350 | 42798 | 31934 | 27813 | 29301 | 13715 | 37520 | 83579 | 134404 | 49978 | 15102 | 51072 | 8908 |
| CADILLAC | '50 | 331 | 134 | 159 | 3195 | 333 | 782 | 90 | 382 | 998 | 543 | 146 | 2527 | 973 | 637 | 377 | 298 | 555 | 169 | 406 | 1075 | 3454 | 590 | 229 | 823 | 122 |
| | '49 | 713 | 426 | 436 | 8162 | 791 | 1576 | 206 | 674 | 2943 | 1296 | 377 | 7004 | 1998 | 1116 | 868 | 762 | 1288 | 390 | 1037 | 2588 | 4887 | 1219 | 527 | 1530 | 350 |
| | '48 | 361 | 239 | 184 | 9005 | 423 | 999 | 123 | 416 | 1637 | 851 | 150 | 4485 | 1137 | 515 | 348 | 408 | 566 | 202 | 620 | 1539 | 2579 | 593 | 278 | 816 | 170 |
| | '47 | 341 | 317 | 214 | 6577 | 469 | 1236 | 139 | 495 | 2071 | 684 | 143 | 4887 | 1284 | 478 | 301 | 485 | 587 | 255 | 698 | 1823 | 2697 | 626 | 214 | 1067 | 99 |
| | '46 | 162 | 149 | 78 | 3719 | 230 | 569 | 68 | 252 | 1000 | 415 | 64 | 2095 | 554 | 215 | 117 | 222 | 270 | 128 | 331 | 921 | 935 | 314 | 93 | 445 | 48 |
| | '45-'42 | 117 | 95 | 42 | 1662 | 144 | 338 | 35 | 121 | 551 | 184 | 28 | 1132 | 284 | 104 | 95 | 134 | 205 | 66 | 175 | 486 | 532 | 167 | 67 | 237 | 24 |
| | '41 | 406 | 414 | 173 | 10839 | 602 | 1509 | 160 | 522 | 2231 | 797 | 126 | 4307 | 1179 | 400 | 312 | 540 | 688 | 286 | 812 | 2272 | 1787 | 686 | 200 | 1152 | 163 |
| | '40 | 71 | 78 | 38 | 3162 | 135 | 286 | 33 | 120 | 427 | 146 | 26 | 887 | 244 | 73 | 54 | 93 | 119 | 66 | 169 | 490 | 311 | 116 | 26 | 230 | 18 |
| | '39 | 68 | 67 | 31 | 2106 | 133 | 275 | 36 | 96 | 339 | 114 | 20 | 757 | 224 | 74 | 70 | 107 | 101 | 45 | 158 | 412 | 274 | 134 | 34 | 224 | 27 |
| | '38 | 44 | 49 | 27 | 1611 | 87 | 182 | 19 | 67 | 256 | 75 | 12 | 401 | 120 | 43 | 43 | 50 | 57 | 46 | 98 | 296 | 205 | 72 | 10 | 143 | 11 |
| | '37 | 53 | 65 | 18 | 1609 | 103 | 303 | 28 | 53 | 274 | 98 | 13 | 445 | 172 | 66 | 109 | 88 | 58 | 64 | 140 | 498 | 212 | 102 | 22 | 175 | 8 |
| | '36 | 25 | 38 | 8 | 1380 | 55 | 171 | 16 | 34 | 143 | 55 | 17 | 295 | 82 | 58 | 33 | 44 | 23 | 37 | 79 | 299 | 131 | 79 | 13 | 107 | 6 |
| | '35 | 3 | 13 | 2 | 648 | 10 | 35 | 3 | 6 | 23 | 13 | 5 | 30 | 16 | 10 | 6 | 15 | 8 | 6 | 14 | 65 | 21 | 14 | 1 | 31 | 4 |
| | '34 | 3 | 8 | 5 | 283 | 10 | 35 | 3 | 5 | 25 | 4 | ... | 31 | 8 | 6 | 4 | 16 | 5 | 6 | 14 | 43 | 13 | 6 | ... | 21 | 2 |
| | Before '34 | 7 | 47 | 3 | 1482 | 41 | 134 | 11 | 13 | 49 | 19 | 11 | 117 | 46 | 48 | 16 | 21 | 19 | 30 | 52 | 160 | 90 | 49 | 9 | 86 | 14 |
| | Unid.* | 5 | 8 | 10 | 11 | 9 | 18 | 2 | 100 | 43 | 47 | 1 | 65 | 2 | 3 | 1 | 3 | 20 | 1 | 12 | 6 | 94 | 3 | 11 | 15 | ... |
| | Total | 2710 | 2147 | 1427 | 52458 | 3575 | 8448 | 954 | 3357 | 12810 | 5141 | 1139 | 29465 | 8321 | 3844 | 2754 | 3194 | 4570 | 1797 | 4315 | 12977 | 18182 | 4744 | 1734 | 7122 | 1008 |
| CHEVROLET | '50 | 10339 | 2871 | 4484 | 46504 | 5774 | 9181 | 1824 | 4799 | 11066 | 13776 | 2705 | 42892 | 21205 | 16035 | 9910 | 6990 | 10856 | 3083 | 9860 | 16878 | 49226 | 15514 | 5261 | 18520 | 2432 |
| | '49 | 14614 | 4686 | 6149 | 68292 | 8817 | 12163 | 2723 | 5589 | 16639 | 16370 | 4781 | 65115 | 31954 | 23879 | 17006 | 14836 | 17599 | 4636 | 14727 | 23284 | 55920 | 21859 | 9279 | 26509 | 4951 |
| | '48 | 10010 | 2546 | 5930 | 49201 | 6612 | 7942 | 1845 | 3784 | 11791 | 11745 | 2869 | 44179 | 21417 | 17381 | 12674 | 10743 | 11002 | 3314 | 9977 | 16112 | 39893 | 16196 | 6729 | 20664 | 3212 |
| | '47 | 10095 | 2811 | 5494 | 47227 | 7278 | 7562 | 1694 | 3302 | 11748 | 11625 | 3089 | 41107 | 20211 | 16831 | 12929 | 10418 | 10579 | 2999 | 9163 | 15041 | 34217 | 15224 | 6161 | 19068 | 2870 |
| | '46 | 6567 | 1769 | 3560 | 30998 | 4250 | 4815 | 1008 | 1643 | 7436 | 7545 | 1910 | 23611 | 11897 | 9304 | 7591 | 5834 | 6151 | 1948 | 5450 | 8868 | 18190 | 9297 | 3895 | 10924 | 1772 |
| | '45-'42 | 5030 | 1365 | 2607 | 15192 | 2689 | 2815 | 516 | 529 | 4812 | 5694 | 1172 | 11126 | 6870 | 5526 | 4697 | 4342 | 4104 | 1271 | 2786 | 4724 | 10680 | 5423 | 2888 | 6086 | 999 |
| | '41 | 18619 | 5211 | 9470 | 86389 | 11345 | 12583 | 2424 | 2809 | 18062 | 19420 | 4553 | 48163 | 29364 | 22426 | 19933 | 17144 | 15045 | 5063 | 13108 | 22280 | 43308 | 22988 | 10139 | 27516 | 4037 |
| | '40 | 12575 | 3674 | 6909 | 71764 | 9020 | 9650 | 2080 | 1930 | 12995 | 14463 | 3688 | 38203 | 22805 | 18365 | 14030 | 13536 | 10650 | 4387 | 11252 | 17760 | 31994 | 18112 | 7352 | 24090 | 3348 |
| | '39 | 10055 | 2811 | 5736 | 40227 | 6685 | 6906 | 1395 | 1091 | 8967 | 11283 | 2546 | 27527 | 14563 | 16024 | 10955 | 9950 | 7857 | 3333 | 7541 | 14036 | 20851 | 13994 | 5841 | 18502 | 2434 |
| | '38 | 5650 | 2202 | 3681 | 39063 | 5265 | 4914 | 1006 | 618 | 5899 | 5923 | 1978 | 21204 | 11954 | 14015 | 10437 | 7526 | 5687 | 2395 | 5450 | 10440 | 12618 | 14331 | 3821 | 14774 | 1656 |
| | '37 | 9589 | 3581 | 5138 | 56994 | 8194 | 9347 | 1737 | 864 | 9267 | 9590 | 3587 | 31882 | 21634 | 19078 | 14119 | 12215 | 7036 | 3969 | 9395 | 18029 | 29352 | 18868 | 5341 | 26045 | 2821 |
| | '36 | 7549 | 3227 | 4740 | 63164 | 8090 | 7426 | 1373 | 640 | 8181 | 8463 | 3409 | 27721 | 19573 | 17729 | 14398 | 9949 | 6411 | 3837 | 7422 | 15494 | 23898 | 20151 | 4874 | 21604 | 2969 |
| | '35 | 2966 | 1496 | 1895 | 37646 | 3443 | 3503 | 579 | 245 | 3378 | 4017 | 1486 | 10368 | 8955 | 7581 | 6386 | 4452 | 2130 | 1787 | 3135 | 7354 | 7582 | 9453 | 2032 | 10044 | 1422 |
| | '34 | 1971 | 1067 | 1236 | 23045 | 2391 | 2262 | 408 | 104 | 2439 | 2532 | 1036 | 5962 | 4467 | 4832 | 4213 | 2677 | 1765 | 1267 | 2207 | 4565 | 4320 | 6223 | 1416 | 6475 | 844 |
| | Before '34 | 2872 | 2201 | 2558 | 62774 | 5585 | 4411 | 772 | 203 | 3951 | 4439 | 1785 | 13703 | 8471 | 13511 | 10316 | 5645 | 3097 | 2540 | 4173 | 6267 | 8186 | 16142 | 2339 | 18128 | 1666 |
| | Unid.* | 111 | 310 | 931 | 100 | 69 | 286 | 64 | 1965 | 384 | 1073 | 31 | 803 | 119 | 33 | 219 | 88 | 618 | 19 | 354 | 148 | 6805 | 66 | 250 | 911 | 9 |
| | Total | 128618 | 41848 | 72498 | 739580 | 94507 | 105940 | 21450 | 30115 | 139013 | 150158 | 40816 | 453746 | 256342 | 222650 | 169813 | 137245 | 120895 | 48050 | 116000 | 201276 | 406551 | 223839 | 77618 | 264737 | 37741 |
| CHRYSLER | '50 | 386 | 159 | 209 | 2465 | 462 | 655 | 90 | 403 | 842 | 545 | 193 | 2285 | 1247 | 1185 | 483 | 420 | 501 | 175 | 632 | 899 | 2895 | 1160 | 315 | 548 | 114 |
| | '49 | 1284 | 508 | 794 | 9476 | 1532 | 1951 | 284 | 915 | 2883 | 1893 | 605 | 9538 | 3873 | 2900 | 2100 | 1756 | 1715 | 556 | 1956 | 3611 | 6850 | 3386 | 995 | 2606 | 646 |
| | '48 | 915 | 474 | 566 | 8381 | 1208 | 1326 | 227 | 675 | 2202 | 1393 | 489 | 7265 | 2673 | 2052 | 1656 | 1346 | 1489 | 460 | 1578 | 3040 | 4881 | 2443 | 954 | 2266 | 477 |
| | '47 | 841 | 544 | 471 | 9811 | 1144 | 1319 | 191 | 547 | 2202 | 1163 | 484 | 6817 | 2544 | 1894 | 1527 | 1278 | 1143 | 391 | 1330 | 2714 | 4744 | 2250 | 766 | 1946 | 494 |
| | '46 | 631 | 396 | 312 | 7211 | 764 | 1101 | 155 | 448 | 1781 | 857 | 282 | 4957 | 1824 | 1162 | 801 | 778 | 667 | 284 | 1062 | 2217 | 2958 | 1123 | 398 | 1263 | 294 |
| | '45-'42 | 272 | 265 | 134 | 3590 | 345 | 529 | 59 | 191 | 930 | 338 | 126 | 1782 | 803 | 394 | 331 | 363 | 389 | 97 | 409 | 804 | 1163 | 532 | 187 | 515 | 106 |
| | '41 | 1032 | 1023 | 523 | 207.4 | 1677 | 2468 | 315 | 934 | 3846 | 1458 | 578 | 8958 | 3680 | 1968 | 1519 | 1520 | 1361 | 531 | 2205 | 3930 | 6728 | 3284 | 1068 | 5341 | 911 |
| | '40 | 622 | 440 | 306 | 12505 | 961 | 1380 | 191 | 446 | 1951 | 753 | 338 | 5714 | 1999 | 1176 | 928 | 967 | 667 | 394 | 1328 | 2371 | 3467 | 1587 | 402 | 1677 | 345 |
| | '39 | 445 | 338 | 230 | 8063 | 660 | 979 | 138 | 312 | 1197 | 523 | 221 | 3520 | 1319 | 903 | 664 | 736 | 503 | 248 | 968 | 1825 | 2094 | 1204 | 265 | 1143 | 244 |
| | '38 | 250 | 248 | 143 | 5216 | 350 | 635 | 90 | 164 | 776 | 287 | 194 | 1999 | 945 | 621 | 452 | 508 | 311 | 187 | 632 | 1161 | 1044 | 680 | 148 | 727 | 167 |
| | '37 | 274 | 450 | 207 | 8731 | 829 | 1246 | 174 | 184 | 1100 | 439 | 318 | 3927 | 1852 | 1070 | 732 | 822 | 406 | 356 | 1217 | 2397 | 2178 | 1581 | 206 | 1247 | 316 |
| | '36 | 109 | 178 | 111 | 5741 | 481 | 545 | 73 | 85 | 488 | 209 | 166 | 1575 | 799 | 553 | 434 | 379 | 155 | 135 | 511 | 968 | 779 | 790 | 108 | 603 | 191 |
| | '35 | 48 | 95 | 46 | 2734 | 192 | 264 | 33 | 26 | 220 | 97 | 82 | 696 | 397 | 282 | 262 | 223 | 67 | 66 | 235 | 496 | 367 | 431 | 60 | 333 | 139 |
| | '34 | 38 | 43 | 27 | 1215 | 105 | 159 | 14 | 14 | 91 | 65 | 31 | 221 | 128 | 113 | 101 | 106 | 37 | 46 | 105 | 274 | 221 | 188 | 29 | 148 | 40 |
| | Before '34 | 103 | 151 | 79 | 6169 | 385 | 477 | 57 | 38 | 327 | 150 | 109 | 917 | 554 | 511 | 345 | 317 | 101 | 203 | 395 | 553 | 513 | 833 | 75 | 648 | 121 |
| | Unid.* | 5 | 30 | 60 | 11 | 10 | 43 | 6 | 376 | 44 | 85 | 4 | 120 | 10 | 5 | 12 | 14 | 99 | ... | 42 | 9 | 621 | 4 | 22 | 45 | 2 |
| | Total | 7206 | 5282 | 4240 | 111019 | 11105 | 15077 | 2097 | 5758 | 20880 | 10055 | 4218 | 59291 | 24757 | 16709 | 12327 | 11533 | 9561 | 4129 | 14625 | 27267 | 40201 | 21163 | 9585 | 18363 | 4309 |
| CROSLEY | '50 | 38 | 5 | 18 | 236 | 51 | 74 | 4 | 5 | 216 | 33 | 4 | 167 | 99 | 27 | 43 | 20 | 99 | 25 | 40 | 95 | 133 | 16 | 38 | 48 | 2 |
| | '49 | 82 | 62 | 72 | 710 | 33 | 134 | 13 | 31 | 393 | 213 | 10 | 500 | 303 | 139 | 227 | 97 | 203 | 53 | 125 | 279 | 335 | 112 | 99 | 198 | 14 |
| | '48 | 102 | 148 | 109 | 2164 | 33 | 255 | 38 | 107 | 877 | 378 | 41 | 2664 | 1061 | 444 | 989 | 412 | 353 | 103 | 387 | 693 | 899 | 304 | 104 | 621 | 91 |
| | '47 | 206 | 90 | 73 | 1694 | 108 | 308 | 29 | 95 | 867 | 264 | 91 | 570 | 947 | 179 | 95 | 317 | 127 | 103 | 282 | 433 | 682 | 211 | 116 | 399 | 41 |
| | '46 | 72 | 5 | 16 | 126 | 12 | 15 | 4 | 1 | 107 | 61 | 5 | 76 | 22 | 8 | 18 | 44 | 50 | 22 | 32 | 94 | 55 | 6 | 39 | 45 | 6 |
| | '45-'42 | 11 | 1 | 1 | 37 | 3 | 25 | 2 | 4 | 49 | 18 | 1 | 28 | 16 | 19 | 6 | 4 | 13 | 5 | 21 | 52 | 35 | 10 | 4 | 6 | ... |
| | '41 | 13 | 1 | 2 | 68 | ... | 29 | 1 | 2 | 72 | 10 | ... | 35 | 21 | 6 | 3 | 13 | 5 | 12 | 18 | 38 | 18 | 5 | 3 | 10 | ... |
| | '40 | 2 | ... | 2 | 14 | ... | 16 | 1 | ... | 16 | 4 | 2 | 17 | 14 | 8 | 5 | 7 | 6 | 4 | ... | 21 | 8 | 2 | 2 | 9 | ... |
| | '39 | 2 | 1 | 3 | 33 | 2 | 10 | ... | ... | 20 | 4 | 1 | 17 | 13 | 13 | 6 | 10 | 2 | 3 | 7 | 18 | 16 | 20 | 3 | 4 | ... |
| | '38 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | '37 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | '36 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | '35 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | '34 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Before '34 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Unid.* | 5 | 1 | 6 | 3 | ... | 22 | ... | 34 | 20 | 13 | ... | 18 | 13 | 7 | 2 | 17 | 9 | ... | 5 | 5 | 111 | 5 | 7 | 7 | 1 |
| | Total | 577 | 304 | 302 | 5085 | 245 | 976 | 92 | 279 | 2537 | 998 | 115 | 4090 | 2419 | 850 | 1074 | 941 | 867 | 330 | 875 | 1928 | 2271 | 753 | 503 | 1532 | 91 |
| DE SOTO | '50 | 270 | 85 | 104 | 1928 | 270 | 477 | 64 | 238 | 473 | 426 | 142 | 1790 | 880 | 776 | 385 | 306 | 434 | 159 | 442 | 926 | 2329 | 887 | 195 | 906 | 102 |
| | '49 | 855 | 430 | 623 | 9484 | 769 | 1552 | 216 | 576 | 1865 | 1167 | 516 | 7963 | 2982 | 1641 | 1169 | 1015 | 1012 | 454 | 1461 | 3498 | 5975 | 1881 | 546 | 1990 | 409 |
| | '48 | 621 | 387 | 312 | 8179 | 568 | 1098 | 153 | 412 | 1501 | 1131 | 395 | 6050 | 1929 | 1182 | 913 | 707 | 883 | 437 | 1032 | 2535 | 4448 | 1152 | 404 | 1633 | 311 |
| | '47 | 484 | 417 | 256 | 8211 | 560 | 1049 | 138 | 363 | 1528 | 776 | 307 | 5155 | 1785 | 1064 | 738 | 609 | 874 | 391 | 939 | 2365 | 3811 | 1144 | 275 | 1424 | 281 |
| | '46 | 466 | 286 | 242 | 6703 | 475 | 928 | 114 | 282 | 1324 | 665 | 256 | 3992 | 1480 | 834 | 586 | 545 | 476 | 280 | 761 | 1964 | 2625 | 1029 | 209 | 1049 | 224 |
| | '45-'42 | 219 | 181 | 121 | 2961 | 213 | 336 | 38 | 143 | 540 | 312 | 115 | 1242 | 625 | 364 | 276 | 212 | 303 | 97 | 328 | 1053 | 819 | 416 | 104 | 449 | 53 |
| | '41 | 733 | 527 | 286 | 13846 | 905 | 1675 | 177 | 960 | 2057 | 946 | 438 | 5844 | 2842 | 1091 | 1008 | 782 | 795 | 362 | 1206 | 2967 | 3755 | 1557 | 299 | 1904 | 245 |
| | '40 | 495 | 287 | 193 | 8968 | 525 | 1239 | 135 | 305 | 1143 | 520 | 280 | 4218 | 1933 | 693 | 599 | 579 | 486 | 300 | 915 | 1848 | 2333 | 1143 | 226 | 1360 | 185 |
| | '39 | 390 | 268 | 189 | 6529 | 460 | 966 | 101 | 207 | 824 | 373 | 189 | 2997 | 1394 | 585 | 450 | 489 | 322 | 244 | 685 | 1611 | 1596 | 954 | 157 | 1220 | 114 |
| | '38 | 232 | 188 | 95 | 4420 | 324 | 714 | 78 | 70 | 462 | 244 | 138 | 1798 | 844 | 374 | 402 | 304 | 233 | 170 | 528 | 951 | 878 | 746 | 92 | 738 | 81 |
| | '37 | 296 | 333 | 165 | 7894 | 669 | 1256 | 130 | 111 | 770 | 341 | 248 | 3665 | 1838 | 745 | 695 | 608 | 296 | 317 | 878 | 1796 | 2036 | 1439 | 107 | 1400 | 137 |
| | '36 | 108 | 179 | 58 | 5325 | 257 | 467 | 44 | 33 | 314 | 147 | 111 | 1304 | 728 | 372 | 278 | 238 | 99 | 97 | 306 | 582 | 617 | 565 | 61 | 508 | 104 |
| | '35 | 37 | 64 | 30 | 2723 | 145 | 215 | 19 | 18 | 133 | 72 | 56 | 562 | 347 | 205 | 159 | 104 | 40 | 43 | 128 | 254 | 209 | 275 | 13 | 230 | 38 |
| | '34 | 3 | 38 | 8 | 748 | 32 | 54 | 3 | 1 | 56 | 12 | 17 | 108 | 80 | 29 | 39 | 25 | 14 | 26 | 21 | 61 | 56 | 99 | 4 | 90 | 10 |
| | Before '34 | 89 | 105 | 44 | 4534 | 145 | 357 | 27 | 2 | 199 | 72 | 73 | 719 | 525 | 183 | 186 | 165 | 84 | 91 | 176 | 262 | 355 | 312 | 29 | 524 | 72 |
| | Unid.* | 5 | 18 | 38 | 7 | 10 | 35 | 4 | 251 | 26 | 40 | 3 | 82 | 11 | 1 | 8 | 3 | 39 | ... | 27 | 8 | 298 | 5 | 16 | 45 | ... |
| | Total | 5295 | 3800 | 2864 | 92360 | 6527 | 12428 | 1439 | 3570 | 13175 | 7244 | 3264 | 47320 | 20211 | 10039 | 7891 | 6870 | 6080 | 3438 | 9752 | 22248 | 31841 | 13575 | 2729 | 15060 | 2364 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# STATES AND MODEL YEAR

| Model Yr. | Neb. | Nev. | N.H. | N.J. | N.M. | N.Y. | N.C. | N.D. | Ohio | Okla. | Ore. | Pa. | R.I. | S.C. | S.D. | Tenn. | Tex. | Utah | Vt. | Va. | Wash. | W.Va. | Wis. | Wyo. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BUICK** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 3832 | 418 | 787 | 9902 | 2319 | 30106 | 6752 | 928 | 17187 | 3691 | 3728 | 22486 | 1205 | 3295 | 1745 | 5671 | 19569 | 1790 | 561 | 3880 | 6385 | 2298 | 3206 | 845 | 306277 |
| '49 | 2780 | 503 | 1155 | 12120 | 1397 | 32511 | 5282 | 1061 | 20388 | 4235 | 3857 | 22060 | 1563 | 3436 | 1316 | 3848 | 15301 | 1618 | 798 | 3915 | 4377 | 1964 | 3906 | 1016 | 311029 |
| '48 | 1563 | 364 | 780 | 7645 | 702 | 21342 | 3027 | 612 | 13740 | 2563 | 2532 | 14122 | 1073 | 1495 | 779 | 2411 | 9241 | 943 | 468 | 3804 | 3493 | 1563 | 4546 | 589 | 204948 |
| '47 | 1764 | 391 | 694 | 10606 | 872 | 28808 | 3836 | 727 | 17435 | 2749 | 3141 | 16374 | 1386 | 1602 | 873 | 2909 | 11442 | 1188 | 509 | 3929 | 4048 | 1959 | 5210 | 623 | 241391 |
| '46 | 922 | 225 | 429 | 6069 | 517 | 15067 | 2219 | 382 | 9705 | 1630 | 1898 | 8801 | 851 | 916 | 470 | 1645 | 6467 | 710 | 328 | 2247 | 2821 | 1289 | 2930 | 356 | 138245 |
| '45-'42 | 611 | 147 | 222 | 3039 | 403 | 7107 | 1461 | 241 | 5170 | 975 | 1273 | 4335 | 567 | 612 | 273 | 1309 | 5395 | 531 | 150 | 1531 | 1655 | 767 | 1560 | 281 | 80330 |
| '41 | 2323 | 560 | 1031 | 14113 | 1324 | 32675 | 5820 | 775 | 23659 | 3971 | 5306 | 21050 | 2108 | 2987 | 1103 | 4825 | 17043 | 1931 | 756 | 4922 | 7139 | 3081 | 7199 | 911 | 343441 |
| '40 | 1586 | 432 | 1049 | 12283 | 945 | 28967 | 3617 | 696 | 17017 | 2826 | 3095 | 17965 | 1907 | 1660 | 813 | 2823 | 9353 | 1158 | 743 | 3963 | 4263 | 2316 | 5668 | 596 | 259122 |
| '39 | 1198 | 230 | 668 | 8566 | 522 | 19436 | 2584 | 402 | 10795 | 2275 | 2242 | 11797 | 1377 | 1109 | 620 | 1994 | 5910 | 753 | 549 | 2964 | 3041 | 1573 | 4223 | 441 | 175628 |
| '38 | 894 | 165 | 514 | 7373 | 380 | 18282 | 1785 | 297 | 7070 | 1549 | 1563 | 9345 | 822 | 963 | 443 | 1242 | 3849 | 605 | 412 | 1776 | 2129 | 1181 | 3041 | 250 | 129319 |
| '37 | 1059 | 256 | 864 | 9140 | 436 | 19512 | 1995 | 257 | 10338 | 1817 | 2290 | 12538 | 1077 | 738 | 508 | 1296 | 3736 | 705 | 498 | 1859 | 3027 | 1357 | 4186 | 373 | 160312 |
| '36 | 759 | 147 | 502 | 5148 | 200 | 13102 | 906 | 168 | 5097 | 1111 | 1276 | 7478 | 649 | 385 | 389 | 685 | 1959 | 421 | 389 | 1085 | 1551 | 809 | 2950 | 254 | 96345 |
| '35 | 189 | 21 | 139 | 1208 | 53 | 3045 | 256 | 78 | 1112 | 375 | 227 | 1646 | 173 | 110 | 117 | 166 | 460 | 70 | 73 | 419 | 314 | 177 | 613 | 45 | 24475 |
| '34 | 130 | 25 | 111 | 1150 | 34 | 2600 | 227 | 40 | 799 | 186 | 202 | 1340 | 191 | 81 | 48 | 95 | 292 | 64 | 112 | 156 | 281 | 121 | 433 | 31 | 17565 |
| Before'34 | 791 | 109 | 282 | 2535 | 98 | 6447 | 317 | 196 | 1936 | 440 | 686 | 3161 | 293 | 182 | 274 | 196 | 688 | 153 | 270 | 331 | 1000 | 281 | 1878 | 133 | 90399 |
| Unid.* | 39 | | 3 | 99 | 31 | 118 | 2 | | 73 | 28 | 10 | 135 | 21 | 31 | 9 | 111 | 103 | 2 | 10 | 2 | 4 | | 56 | 3 | 4433 |
| Total | 20420 | 3983 | 9000 | 111113 | 10134 | 278019 | 39796 | 6774 | 161519 | 30621 | 33147 | 174591 | 15235 | 16229 | 9779 | 30916 | 110848 | 12572 | 6594 | 39090 | 45344 | 20898 | 54443 | 6727 | 2543220 |
| **CADILLAC** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 381 | 107 | 92 | 1062 | 240 | 4393 | 543 | 75 | 1858 | 450 | 370 | 2323 | 184 | 257 | 145 | 458 | 1913 | 166 | 64 | 488 | 760 | 153 | 279 | 64 | 38900 |
| '49 | 567 | 264 | 190 | 3795 | 314 | 9793 | 1228 | 201 | 4834 | 1007 | 854 | 5180 | 529 | 567 | 231 | 962 | 4960 | 382 | 166 | 979 | 1110 | 291 | 1323 | 219 | 82909 |
| '48 | 230 | 136 | 123 | 2202 | 132 | 6137 | 631 | 75 | 2891 | 563 | 467 | 3168 | 301 | 283 | 85 | 530 | 2459 | 175 | 65 | 672 | 739 | 320 | 830 | 105 | 48683 |
| '47 | 229 | 186 | 129 | 2756 | 145 | 7461 | 673 | 88 | 3142 | 539 | 456 | 3240 | 369 | 283 | 73 | 613 | 2498 | 180 | 95 | 622 | 750 | 338 | 794 | 99 | 53963 |
| '46 | 102 | 69 | 62 | 1318 | 73 | 3444 | 331 | 22 | 1618 | 311 | 181 | 1520 | 182 | 158 | 29 | 303 | 1151 | 98 | 39 | 290 | 364 | 179 | 422 | 37 | 25553 |
| '45-'42 | 85 | 54 | 34 | 735 | 51 | 1715 | 215 | 6 | 798 | 102 | 153 | 734 | 116 | 86 | 15 | 152 | 723 | 49 | 16 | 98 | 221 | 65 | 191 | 6 | 13405 |
| '41 | 187 | 210 | 128 | 3365 | 192 | 6789 | 675 | 43 | 3295 | 586 | 620 | 3367 | 417 | 379 | 65 | 672 | 2719 | 237 | 112 | 703 | 864 | 335 | 819 | 69 | 59273 |
| '40 | 32 | 26 | 36 | 678 | 33 | 1552 | 112 | 6 | 630 | 147 | 87 | 757 | 106 | 46 | 16 | 116 | 545 | 45 | 28 | 153 | 136 | 62 | 226 | 15 | 13013 |
| '39 | 31 | 37 | 40 | 640 | 42 | 1469 | 98 | 5 | 667 | 105 | 109 | 699 | 105 | 61 | 12 | 95 | 398 | 40 | 22 | 135 | 140 | 47 | 194 | 11 | 11113 |
| '38 | 14 | 14 | 32 | 465 | 14 | 944 | 69 | 4 | 350 | 84 | 58 | 405 | 61 | 29 | 4 | 55 | 210 | 36 | 8 | 76 | 79 | 38 | 90 | 7 | 7170 |
| '37 | 26 | 24 | 37 | 642 | 25 | 1282 | 87 | 6 | 540 | 64 | 91 | 657 | 73 | 35 | 6 | 61 | 266 | 30 | 27 | 96 | 150 | 65 | 136 | 12 | 9135 |
| '36 | 15 | 15 | 23 | 389 | 15 | 763 | 47 | 1 | 320 | 115 | 71 | 378 | 54 | 24 | 11 | 39 | 122 | 16 | 18 | 49 | 107 | 28 | 74 | 7 | 5933 |
| '35 | 2 | 2 | 4 | 70 | 1 | 133 | 5 | 1 | 46 | 35 | 14 | 98 | 8 | 3 | | 7 | 12 | 6 | 1 | 8 | 16 | 4 | 27 | 1 | 1506 |
| '34 | 3 | 2 | 3 | 69 | 1 | 110 | 8 | | 55 | 31 | 26 | 72 | 6 | 3 | 1 | 5 | 12 | 7 | 1 | 8 | 40 | 4 | 17 | 1 | 1047 |
| Before'34 | 14 | 15 | 26 | 319 | 13 | 453 | 25 | 6 | 129 | 29 | 59 | 221 | 24 | 13 | 13 | 18 | 87 | 25 | 17 | 20 | 73 | 20 | 53 | 12 | 4198 |
| Unid.* | 6 | 1 | | 21 | 1 | 20 | 1 | | 13 | 3 | 4 | 29 | 5 | 2 | | 20 | 10 | | 1 | 4 | | | 4 | | 635 |
| Total | 1894 | 1182 | 970 | 18826 | 1292 | 48438 | 4749 | 521 | 21079 | 4171 | 3620 | 22838 | 2543 | 2189 | 708 | 4104 | 17899 | 1495 | 700 | 4297 | 5549 | 1947 | 5381 | 684 | 373445 |
| **CHEVROLET** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 7950 | 775 | 2620 | 18383 | 3771 | 50099 | 13394 | 2520 | 41624 | 10695 | 7870 | 43601 | 2895 | 7838 | 3945 | 12256 | 40250 | 3152 | 1368 | 13503 | 14830 | 5135 | 6249 | 1487 | 657898 |
| '49 | 10947 | 1185 | 3187 | 29486 | 4674 | 73565 | 21448 | 5512 | 68625 | 16751 | 13012 | 64415 | 4719 | 11915 | 5037 | 17607 | 63174 | 4408 | 2072 | 21155 | 19678 | 6801 | 20378 | 2938 | 996084 |
| '48 | 8941 | 685 | 2057 | 20212 | 3263 | 50494 | 14957 | 4058 | 43590 | 12995 | 8287 | 43888 | 3012 | 8295 | 4329 | 12811 | 42771 | 3047 | 1481 | 14453 | 9945 | 7144 | 16105 | 2106 | 685594 |
| '47 | 9370 | 642 | 1981 | 18978 | 3316 | 45012 | 15004 | 4167 | 40462 | 12465 | 8337 | 38491 | 3046 | 8389 | 4829 | 11963 | 42979 | 2978 | 1357 | 13467 | 10431 | 7307 | 14811 | 2010 | 651161 |
| '46 | 5221 | 413 | 1184 | 11923 | 2085 | 27843 | 10214 | 2386 | 23431 | 7077 | 5113 | 22226 | 1992 | 5481 | 2809 | 7571 | 25209 | 1844 | 854 | 8111 | 6565 | 4791 | 8649 | 1180 | 391381 |
| '45-'42 | 3304 | 329 | 554 | 5944 | 1450 | 13104 | 6465 | 1413 | 13837 | 3875 | 3407 | 11175 | 1063 | 3891 | 1617 | 5417 | 18541 | 1225 | 429 | 2778 | 4277 | 2811 | 5177 | 685 | 226711 |
| '41 | 13721 | 1138 | 2916 | 27388 | 4959 | 57572 | 26053 | 5994 | 58463 | 17164 | 14392 | 52900 | 4992 | 15631 | 6293 | 21461 | 64051 | 5167 | 1965 | 17923 | 18584 | 10790 | 23524 | 2811 | 966738 |
| '40 | 9583 | 814 | 2458 | 22231 | 3360 | 48287 | 18154 | 4364 | 43944 | 13654 | 9843 | 42943 | 4101 | 11304 | 4677 | 14570 | 43874 | 4063 | 1749 | 15188 | 12750 | 8097 | 19922 | 1863 | 746377 |
| '39 | 8032 | 583 | 2063 | 16071 | 2604 | 34092 | 15339 | 3588 | 37358 | 10382 | 7229 | 30382 | 3107 | 8501 | 3839 | 10772 | 30795 | 2920 | 1293 | 10897 | 9440 | 6293 | 14650 | 1449 | 532008 |
| '38 | 6531 | 494 | 1549 | 12805 | 1889 | 26580 | 10164 | 2581 | 28648 | 8814 | 5708 | 22484 | 2149 | 4886 | 3137 | 8896 | 23517 | 2258 | 1051 | 7464 | 6815 | 4533 | 12762 | 1156 | 407490 |
| '37 | 9086 | 590 | 2545 | 19589 | 2479 | 43299 | 16000 | 3249 | 38780 | 11185 | 9987 | 40910 | 3998 | 7934 | 4278 | 10642 | 29510 | 3978 | 1679 | 12120 | 13113 | 6585 | 21014 | 1628 | 650781 |
| '36 | 9552 | 664 | 2429 | 16107 | 2297 | 38591 | 11698 | 2701 | 34121 | 11119 | 9656 | 32002 | 3209 | 6533 | 3847 | 9154 | 27512 | 3434 | 1473 | 10362 | 12027 | 6044 | 21477 | 1633 | 582866 |
| '35 | 4062 | 318 | 1286 | 7257 | 987 | 16905 | 6358 | 1616 | 12919 | 5399 | 3686 | 12636 | 1601 | 3503 | 1799 | 4302 | 11812 | 1393 | 638 | 5785 | 4743 | 3112 | 9650 | 753 | 266259 |
| '34 | 2810 | 228 | 831 | 5235 | 651 | 12097 | 4308 | 1034 | 7941 | 2910 | 2568 | 8995 | 982 | 2183 | 1093 | 2378 | 7798 | 945 | 446 | 3849 | 3405 | 1899 | 6386 | 490 | 189784 |
| Before'34 | 6571 | 529 | 1683 | 9832 | 1253 | 25037 | 9539 | 2722 | 19057 | 9833 | 6279 | 17277 | 1961 | 4279 | 2970 | 4940 | 17151 | 1494 | 1164 | 8431 | 8424 | 3929 | 14349 | 980 | 385498 |
| Unid.* | 187 | 5 | 4 | 127 | 140 | 176 | 18 | 10 | 256 | 154 | 14 | 1165 | 82 | 128 | 27 | 537 | 376 | 53 | 1 | 61 | 19 | 16 | 212 | 13 | 19449 |
| Total | 117568 | 9390 | 29327 | 242125 | 39200 | 562382 | 195737 | 48869 | 467066 | 150472 | 114495 | 485580 | 42489 | 110461 | 54388 | 153308 | 499379 | 42379 | 19041 | 161528 | 149812 | 69893 | 214337 | 22962 | 6329023 |
| **CHRYSLER** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 515 | 90 | 130 | 1673 | 342 | 4253 | 459 | 105 | 2963 | 414 | 440 | 3417 | 222 | 230 | 258 | 593 | 1867 | 221 | 92 | 631 | 1532 | 289 | 273 | 83 | 40408 |
| '49 | 1472 | 247 | 357 | 5186 | 603 | 12697 | 1847 | 747 | 8829 | 1636 | 1703 | 10960 | 719 | 786 | 739 | 1699 | 6894 | 658 | 282 | 2172 | 2178 | 771 | 2656 | 431 | 129964 |
| '48 | 1161 | 242 | 317 | 4078 | 457 | 9635 | 1271 | 556 | 8297 | 1379 | 1228 | 7972 | 522 | 648 | 566 | 1271 | 5147 | 469 | 221 | 1746 | 1758 | 1025 | 2337 | 368 | 101117 |
| '47 | 1149 | 252 | 253 | 3566 | 377 | 9206 | 1203 | 471 | 6148 | 1198 | 1247 | 7267 | 495 | 543 | 568 | 1119 | 4780 | 476 | 204 | 1543 | 1580 | 831 | 1943 | 286 | 94545 |
| '46 | 617 | 161 | 183 | 2909 | 282 | 6983 | 861 | 251 | 4864 | 773 | 932 | 6089 | 370 | 394 | 277 | 734 | 3022 | 282 | 144 | 1123 | 1239 | 732 | 1349 | 192 | 68347 |
| '45-'42 | 248 | 95 | 62 | 1263 | 153 | 3031 | 470 | 76 | 2147 | 407 | 494 | 1995 | 203 | 196 | 92 | 314 | 1544 | 194 | 50 | 267 | 569 | 290 | 578 | 83 | 29397 |
| '41 | 862 | 328 | 301 | 6290 | 549 | 14111 | 2188 | 277 | 10006 | 1454 | 2429 | 11848 | 795 | 838 | 448 | 1609 | 5462 | 686 | 271 | 2143 | 3075 | 1370 | 2756 | 359 | 143128 |
| '40 | 585 | 148 | 209 | 3644 | 272 | 8356 | 1188 | 178 | 5848 | 889 | 1312 | 7396 | 497 | 495 | 266 | 886 | 2747 | 393 | 165 | 1337 | 1486 | 906 | 1595 | 292 | 83154 |
| '39 | 392 | 96 | 161 | 2819 | 196 | 6490 | 851 | 106 | 3848 | 580 | 1008 | 5282 | 389 | 333 | 190 | 556 | 1624 | 276 | 128 | 704 | 1018 | 563 | 1210 | 148 | 58084 |
| '38 | 326 | 61 | 115 | 2031 | 119 | 4640 | 666 | 77 | 2256 | 430 | 808 | 3383 | 191 | 199 | 135 | 462 | 1150 | 175 | 91 | 524 | 691 | 396 | 845 | 118 | 37537 |
| '37 | 510 | 126 | 224 | 3172 | 191 | 7623 | 700 | 151 | 5334 | 568 | 1117 | 7240 | 571 | 282 | 224 | 841 | 1450 | 368 | 186 | 711 | 1444 | 692 | 1679 | 141 | 67588 |
| '36 | 222 | 63 | 96 | 1430 | 85 | 3575 | 305 | 63 | 1947 | 340 | 482 | 2948 | 247 | 131 | 117 | 254 | 669 | 205 | 101 | 386 | 656 | 377 | 727 | 79 | 31639 |
| '35 | 118 | 23 | 45 | 639 | 40 | 1647 | 156 | 39 | 879 | 168 | 304 | 1382 | 122 | 78 | 52 | 100 | 320 | 96 | 78 | 130 | 357 | 185 | 455 | 37 | 15317 |
| '34 | 50 | 13 | 31 | 281 | 23 | 773 | 77 | 19 | 437 | 60 | 144 | 856 | 46 | 34 | 22 | 65 | 159 | 37 | 24 | 72 | 213 | 130 | 209 | 16 | 7041 |
| Before'34 | 379 | 53 | 93 | 1053 | 72 | 2738 | 217 | 129 | 1192 | 172 | 486 | 2350 | 163 | 102 | 130 | 156 | 405 | 84 | 131 | 292 | 738 | 274 | 775 | 64 | 26317 |
| Unid.* | 9 | | | 23 | 12 | 67 | 1 | | 33 | 8 | 2 | 53 | 9 | 3 | 4 | 43 | 37 | 3 | 1 | 5 | | | 27 | | 1969 |
| Total | 8495 | 1888 | 2567 | 40067 | 3773 | 95634 | 12258 | 3323 | 62924 | 10454 | 13097 | 80138 | 5561 | 5264 | 4028 | 10312 | 37475 | 4613 | 2149 | 13806 | 18522 | 9130 | 19603 | 2604 | 938568 |
| **CROSLEY** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 10 | 1 | 10 | 127 | 59 | 224 | 114 | 10 | 202 | 17 | 40 | 161 | 10 | 25 | 3 | 148 | 174 | 30 | 19 | 40 | 191 | 65 | 19 | 6 | 3215 |
| '49 | 33 | 2 | 27 | 412 | 70 | 763 | 90 | 16 | 825 | 67 | 126 | 365 | 36 | 73 | 29 | 222 | 342 | 65 | 38 | 213 | 145 | 112 | 107 | 11 | 6310 |
| '48 | 124 | 10 | 95 | 906 | 142 | 2151 | 255 | 35 | 1934 | 230 | 412 | 1437 | 102 | 179 | 87 | 699 | 1386 | 156 | 80 | 529 | 248 | 341 | 430 | 28 | 25384 |
| '47 | 97 | 19 | 55 | 945 | 47 | 1426 | 325 | 27 | 1298 | 109 | 210 | 681 | 52 | 183 | 32 | 465 | 686 | 37 | 28 | 547 | 162 | 332 | 166 | 31 | 16299 |
| '46 | 7 | | 5 | 25 | 9 | 105 | 58 | 7 | 144 | 45 | 4 | 155 | 18 | 80 | 13 | 89 | 43 | 1 | 5 | 88 | 16 | 32 | 24 | 4 | 1890 |
| '45-'42 | 3 | | 3 | 35 | 1 | 85 | 8 | | 39 | 5 | 18 | 71 | 12 | 19 | | 16 | 28 | | 1 | 40 | 5 | 4 | 8 | 1 | 789 |
| '41 | | | 3 | 33 | | 100 | 9 | 1 | 59 | 8 | 7 | 48 | 13 | 9 | 2 | 8 | 15 | 1 | 2 | 32 | 10 | 6 | 13 | 1 | 781 |
| '40 | 5 | | 1 | 6 | 3 | 20 | | | 18 | | 1 | 1 | | 2 | | 9 | 9 | 1 | | 7 | 3 | 3 | 4 | | 243 |
| '39 | 1 | 1 | | 15 | 1 | 38 | 6 | | 19 | 10 | 1 | 3 | 2 | 4 | 1 | 3 | 14 | 1 | | 5 | 1 | 3 | 20 | | 358 |
| '38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Before'34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unid.* | 3 | | 1 | 8 | 2 | 11 | | 2 | 12 | 1 | | 4 | | | | 18 | 8 | 1 | | 1 | | 2 | 2 | | 338 |
| Total | 283 | 33 | 200 | 2512 | 334 | 4323 | 864 | 98 | 4250 | 492 | 819 | 2911 | 248 | 543 | 167 | 1674 | 2706 | 233 | 176 | 1502 | 781 | 903 | 737 | 83 | 57623 |
| **DE SOTO** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 277 | 43 | 96 | 1042 | 205 | 3630 | 441 | 156 | 2165 | 384 | 375 | 2754 | 209 | 248 | 215 | 485 | 1184 | 193 | 76 | 470 | 1116 | 147 | 232 | 79 | 30866 |
| '49 | 637 | 184 | 232 | 3908 | 288 | 12008 | 1615 | 448 | 7525 | 1005 | 1565 | 9036 | 563 | 738 | 368 | 1231 | 3742 | 617 | 209 | 1630 | 1991 | 477 | 2181 | 247 | 102375 |
| '48 | 608 | 148 | 211 | 2705 | 221 | 10206 | 1005 | 373 | 5156 | 867 | 1083 | 6382 | 406 | 495 | 345 | 816 | 3030 | 397 | 172 | 1422 | 1574 | 682 | 1863 | 211 | 78726 |
| '47 | 484 | 138 | 205 | 2615 | 201 | 10820 | 867 | 194 | 5096 | 697 | 1102 | 5673 | 352 | 415 | 239 | 660 | 2521 | 366 | 139 | 1122 | 1479 | 951 | 1751 | 172 | 72342 |
| '46 | 370 | 106 | 161 | 2102 | 184 | 7041 | 808 | 155 | 4047 | 612 | 852 | 4717 | 251 | 343 | 200 | 565 | 1969 | 336 | 140 | 932 | 1183 | 504 | 1270 | 131 | 58788 |
| '45-'42 | 123 | 47 | 63 | 713 | 101 | 1702 | 318 | 64 | 1562 | 253 | 347 | 1367 | 92 | 196 | 58 | 291 | 1045 | 168 | 49 | 222 | 488 | 184 | 419 | 60 | 29734 |
| '41 | 481 | 213 | 233 | 3552 | 273 | 7642 | 1056 | 214 | 6046 | 777 | 1704 | 7042 | 456 | 522 | 210 | 901 | 2703 | 618 | 192 | 1264 | 2530 | 741 | 2061 | 185 | 89390 |
| '40 | 282 | 84 | 227 | 2653 | 140 | 6261 | 645 | 127 | 4935 | 569 | 1040 | 5696 | 327 | 294 | 169 | 649 | 1674 | 367 | 133 | 968 | 1319 | 549 | 1498 | 119 | 61600 |
| '39 | 247 | 91 | 165 | 2168 | 95 | 5215 | 497 | 96 | 3588 | 375 | 788 | 4026 | 261 | 245 | 128 | 487 | 1268 | 329 | 99 | 851 | 1071 | 422 | 1136 | 104 | 48865 |
| '38 | 168 | 47 | 114 | 1513 | 66 | 3420 | 282 | 62 | 2170 | 295 | 471 | 2822 | 125 | 114 | 68 | 271 | 776 | 188 | 75 | 431 | 687 | 316 | 676 | 66 | 30008 |
| '37 | 322 | 109 | 185 | 2680 | 116 | 5943 | 451 | 111 | 4921 | 485 | 1029 | 5487 | 399 | 218 | 148 | 771 | 998 | 429 | 130 | 649 | 1434 | 645 | 1669 | 88 | 57328 |
| '36 | 232 | 49 | 71 | 915 | 49 | 2231 | 161 | 42 | 1639 | 229 | 518 | 1922 | 151 | 63 | 72 | 157 | 371 | 200 | 59 | 276 | 754 | 325 | 682 | 48 | 23006 |
| '35 | 73 | 17 | 23 | 422 | 18 | 1051 | 99 | 28 | 696 | 94 | 238 | 778 | 79 | 32 | 54 | 74 | 186 | 104 | 29 | 119 | 327 | 106 | 322 | 21 | 11108 |
| '34 | 32 | 10 | 18 | 88 | 12 | 185 | 18 | 5 | 377 | 31 | 76 | 158 | 8 | 7 | 9 | 23 | 37 | 29 | 6 | 19 | 124 | 28 | 50 | 8 | 2988 |
| Before'34 | 105 | 36 | 62 | 532 | 17 | 1466 | 83 | 34 | 986 | 104 | 395 | 1107 | 107 | 63 | 42 | 106 | 259 | 89 | 45 | 142 | 547 | 158 | 484 | 24 | 18242 |
| Unid.* | 11 | 1 | | 22 | 15 | 34 | 2 | 2 | 20 | 1 | | 24 | 11 | 3 | 1 | 27 | 14 | | | 2 | 1 | | 1 | | 1198 |
| Total | 4321 | 1323 | 2134 | 27610 | 2022 | 79155 | 8258 | 2113 | 51830 | 6789 | 11583 | 58885 | 3800 | 3994 | 2326 | 7244 | 21774 | 4401 | 1852 | 10319 | 16874 | 5734 | 16211 | 1552 | 702528 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

## ● TOTAL REGISTRATIONS ●

# CARS IN USE BY MAKES, STATES

| Model Yr | Ala. | Ariz. | Ark. | Calif. | Colo. | Conn. | Del. | D. C. | Fla. | Ga. | Idaho | Ill. | Ind. | Iowa | Kan. | Ky. | La. | Me. | Md. | Mass. | Mich. | Minn. | Miss. | Mo. | Mont. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DODGE** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 1048 | 232 | 772 | 3645 | 898 | 1292 | 190 | 585 | 1638 | 1863 | 292 | 5370 | 2248 | 2601 | 1138 | 942 | 1329 | 426 | 1222 | 2424 | 5658 | 2378 | 561 | 1334 | 226 |
| '49 | 3172 | 1100 | 1838 | 16128 | 2240 | 4084 | 644 | 1833 | 6046 | 4382 | 1380 | 20237 | 7965 | 6377 | 3709 | 3667 | 3931 | 1370 | 4111 | 8361 | 19211 | 5579 | 1992 | 5420 | 1304 |
| '48 | 1900 | 713 | 1259 | 16133 | 1732 | 3114 | 474 | 1648 | 4115 | 3036 | 810 | 15697 | 5410 | 3696 | 2531 | 2242 | 2837 | 1133 | 3030 | 6871 | 11397 | 3706 | 1389 | 4063 | 867 |
| '47 | 1856 | 670 | 991 | 17380 | 1946 | 3377 | 515 | 1778 | 4726 | 2902 | 874 | 15969 | 6041 | 3818 | 2894 | 2942 | 2563 | 1186 | 3283 | 6971 | 11699 | 3890 | 1091 | 4353 | 939 |
| '46 | 1413 | 639 | 787 | 12952 | 1307 | 2326 | 351 | 934 | 3283 | 2110 | 637 | 11606 | 4013 | 2475 | 1903 | 1757 | 1571 | 756 | 2222 | 4825 | 7511 | 2712 | 634 | 3038 | 614 |
| '45-'42 | 899 | 399 | 585 | 4641 | 707 | 931 | 120 | 362 | 1670 | 1038 | 298 | 3401 | 1686 | 1014 | 900 | 811 | 1351 | 334 | 785 | 1837 | 2963 | 1006 | 464 | 1190 | 224 |
| '41 | 2610 | 1261 | 1145 | 23539 | 2345 | 3578 | 480 | 1409 | 5447 | 2886 | 921 | 13085 | 6055 | 3610 | 2818 | 2378 | 2806 | 1071 | 3056 | 7297 | 11479 | 3367 | 1080 | 4366 | 744 |
| '40 | 2234 | 925 | 1018 | 19850 | 1727 | 2847 | 435 | 960 | 3745 | 2423 | 707 | 11520 | 5222 | 2979 | 2232 | 2377 | 2133 | 925 | 2771 | 6122 | 9417 | 3135 | 947 | 4283 | 591 |
| '39 | 1977 | 795 | 949 | 18469 | 1776 | 2740 | 344 | 850 | 3199 | 2132 | 646 | 10185 | 4120 | 3021 | 1984 | 2116 | 1882 | 883 | 2189 | 5937 | 7454 | 3019 | 713 | 4316 | 521 |
| '38 | 886 | 462 | 498 | 11311 | 832 | 1547 | 210 | 380 | 1615 | 1003 | 348 | 5000 | 2278 | 1626 | 1282 | 1243 | 1096 | 605 | 1341 | 3175 | 3690 | 1914 | 393 | 2007 | 299 |
| '37 | 1669 | 1136 | 1029 | 23089 | 2090 | 4759 | 530 | 949 | 3150 | 2042 | 875 | 13457 | 6222 | 3553 | 2869 | 3227 | 1560 | 1194 | 3382 | 8023 | 9337 | 4609 | 644 | 4944 | 616 |
| '36 | 1113 | 1223 | 743 | 23786 | 1957 | 3068 | 376 | 821 | 2206 | 1410 | 759 | 9505 | 4964 | 2963 | 2101 | 2350 | 1235 | 906 | 2391 | 5646 | 6362 | 3435 | 480 | 3942 | 627 |
| '35 | 402 | 420 | 308 | 14894 | 895 | 1316 | 145 | 155 | 809 | 539 | 422 | 3443 | 2484 | 1631 | 1116 | 1084 | 497 | 388 | 924 | 2117 | 1952 | 1734 | 223 | 1878 | 373 |
| '34 | 180 | 151 | 120 | 4792 | 297 | 589 | 66 | 56 | 436 | 234 | 133 | 1191 | 661 | 522 | 397 | 453 | 254 | 195 | 414 | 1031 | 893 | 512 | 112 | 817 | 145 |
| Before '34 | 261 | 298 | 270 | 12315 | 867 | 1073 | 100 | 76 | 566 | 339 | 282 | 2433 | 1421 | 1667 | 1110 | 746 | 458 | 438 | 639 | 1107 | 1448 | 1646 | 184 | 2005 | 249 |
| Unid.* | 16 | 60 | 133 | 0 | 23 | 110 | 20 | 866 | 94 | 213 | 9 | 281 | 43 | 4 | 28 | 16 | 175 | 2 | 129 | 14 | 2180 | 6 | 42 | 127 | 4 |
| Total | 21623 | 10684 | 12430 | 225112 | 21639 | 36801 | 5000 | 13029 | 42919 | 28353 | 9368 | 142380 | 60743 | 41547 | 29872 | 27851 | 25731 | 11812 | 31880 | 71198 | 107451 | 42867 | 11129 | 49098 | 8356 |
| **FORD** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 10740 | 2382 | 4843 | 42121 | 5643 | 7248 | 1563 | 4335 | 12053 | 13858 | 2369 | 40501 | 19556 | 17240 | 10853 | 7340 | 12572 | 2379 | 7762 | 16236 | 56482 | 15568 | 5883 | 16087 | 2152 |
| '49 | 15616 | 4962 | 8979 | 50901 | 9468 | 11026 | 2342 | 5490 | 22332 | 21776 | 4721 | 69073 | 30390 | 27603 | 17791 | 15993 | 19542 | 4228 | 11645 | 23809 | 79865 | 23907 | 10789 | 25926 | 4901 |
| '48 | 3839 | 1013 | 2379 | 35550 | 2313 | 2133 | 464 | 1144 | 6002 | 5924 | 1019 | 14419 | 6270 | 6062 | 4149 | 3667 | 5295 | 1042 | 2305 | 6635 | 15077 | 8212 | 2962 | 5861 | 1038 |
| '47 | 5802 | 1750 | 3724 | 40822 | 3866 | 3820 | 840 | 1720 | 8674 | 8996 | 1960 | 23140 | 11099 | 8839 | 7147 | 6068 | 7456 | 1728 | 4171 | 9583 | 25713 | 8086 | 4493 | 9635 | 1658 |
| '46 | 7745 | 2067 | 4653 | 27234 | 4569 | 4124 | 1013 | 1648 | 9358 | 12348 | 1739 | 23218 | 13002 | 10215 | 7677 | 6614 | 9405 | 2067 | 4964 | 10624 | 24518 | 10621 | 6300 | 9636 | 1926 |
| '45-'42 | 3166 | 856 | 2079 | 9765 | 1644 | 1306 | 247 | 351 | 4489 | 5024 | 698 | 6950 | 3434 | 3538 | 2762 | 2594 | 3561 | 840 | 1225 | 3237 | 7765 | 3572 | 2633 | 3419 | 686 |
| '41 | 13345 | 3251 | 8043 | 53834 | 7093 | 6410 | 1230 | 1828 | 15002 | 16453 | 2733 | 28530 | 16444 | 16155 | 12625 | 9389 | 14044 | 2886 | 6116 | 14225 | 37392 | 18716 | 9789 | 15230 | 2791 |
| '40 | 9639 | 2371 | 5882 | 44686 | 5771 | 5125 | 984 | 1051 | 10940 | 10201 | 2197 | 22049 | 13172 | 13753 | 9271 | 7856 | 9729 | 2547 | 4891 | 12075 | 25963 | 13129 | 6866 | 12044 | 2167 |
| '39 | 6945 | 1778 | 4556 | 43274 | 4784 | 3890 | 739 | 843 | 7805 | 11967 | 1788 | 18024 | 9782 | 12074 | 7321 | 6458 | 7427 | 2043 | 3666 | 9524 | 19455 | 10971 | 4987 | 9914 | 1664 |
| '38 | 3373 | 1363 | 2502 | 29085 | 3404 | 3016 | 507 | 535 | 5135 | 5630 | 1246 | 12249 | 7257 | 9226 | 5651 | 3789 | 4510 | 1559 | 2516 | 7579 | 9976 | 9942 | 2534 | 7326 | 1198 |
| '37 | 6659 | 2779 | 4462 | 47957 | 6448 | 7083 | 1129 | 920 | 9331 | 9982 | 2547 | 25765 | 17476 | 14910 | 10692 | 8605 | 8446 | 2894 | 5809 | 15483 | 30848 | 19890 | 4458 | 15011 | 2208 |
| '36 | 7537 | 2767 | 5651 | 55656 | 6371 | 5920 | 1013 | 713 | 8725 | 12607 | 2524 | 20289 | 13006 | 12721 | 9589 | 9060 | 6078 | 2855 | 5036 | 13861 | 22518 | 14884 | 4748 | 13135 | 2362 |
| '35 | 3866 | 1835 | 3331 | 47290 | 3891 | 4028 | 623 | 468 | 4846 | 6298 | 1586 | 13320 | 9776 | 10493 | 7341 | 5417 | 3018 | 1907 | 3092 | 8417 | 12435 | 12680 | 2714 | 10754 | 1656 |
| '34 | 2405 | 1118 | 2067 | 27153 | 2573 | 2067 | 347 | 149 | 2965 | 5101 | 919 | 5187 | 3983 | 4209 | 4129 | 2855 | 2310 | 1251 | 1727 | 4269 | 5795 | 5135 | 1857 | 5840 | 809 |
| Before '34 | 12388 | 5268 | 10978 | 129155 | 10396 | 6736 | 1403 | 445 | 13635 | 18588 | 4373 | 33906 | 22099 | 31854 | 24259 | 15165 | 10174 | 4715 | 8979 | 8654 | 27962 | 38996 | 8068 | 29910 | 3750 |
| Unid.* | 85 | 207 | 818 | 88 | 71 | 194 | 44 | 1704 | 303 | 1411 | 11 | 661 | 111 | 28 | 242 | 78 | 730 | 22 | 218 | 78 | 8916 | 71 | 321 | 892 | 2 |
| Total | 113250 | 35790 | 75245 | 683372 | 78406 | 73924 | 14473 | 23041 | 141795 | 178186 | 32419 | 357272 | 194037 | 198821 | 141289 | 110498 | 122297 | 34763 | 71922 | 164411 | 410650 | 209180 | 79402 | 190701 | 30956 |
| **FRAZER** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 49 | 7 | 23 | 313 | 89 | 131 | 22 | 26 | 60 | 53 | 24 | 756 | 331 | 222 | 156 | 42 | 79 | 45 | 110 | 143 | 595 | 276 | 29 | 114 | 21 |
| '49 | 254 | 65 | 241 | 736 | 176 | 135 | 48 | 53 | 453 | 292 | 233 | 2155 | 778 | 931 | 648 | 290 | 437 | 114 | 239 | 256 | 1564 | 721 | 188 | 448 | 188 |
| '48 | 508 | 211 | 331 | 3107 | 565 | 342 | 90 | 159 | 899 | 491 | 428 | 4939 | 1791 | 2322 | 1292 | 807 | 713 | 118 | 442 | 609 | 3354 | 1298 | 312 | 1241 | 349 |
| '47 | 645 | 311 | 327 | 5202 | 648 | 636 | 130 | 226 | 1264 | 691 | 521 | 4868 | 1936 | 1394 | 1299 | 749 | 786 | 285 | 646 | 1165 | 3918 | 1125 | 324 | 1160 | 381 |
| '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '40 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Before '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unid.* | 33 | 32 | 29 | 183 | 4 | 26 | 4 | 32 | 40 | 31 | 6 | 324 | 61 | 35 | 12 | 14 | 48 | 2 | 14 | 33 | 123 | 93 | 28 | 24 | 3 |
| Total | 1489 | 626 | 951 | 9541 | 1472 | 1270 | 294 | 496 | 2716 | 1558 | 1210 | 13040 | 4897 | 4904 | 3299 | 1702 | 2063 | 564 | 1451 | 2206 | 9554 | 3501 | 870 | 2987 | 920 |
| **GRAHAM** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '41 | 4 | 4 | 4 | 182 | 9 | 9 | | | 22 | 2 | 7 | 69 | 25 | 11 | 1 | 5 | 4 | 6 | 4 | 21 | 31 | 8 | 1 | 13 | 2 |
| '40 | 4 | 2 | 1 | 320 | 10 | 15 | 1 | | 39 | 2 | 6 | 90 | 32 | 20 | 10 | 6 | 2 | 12 | 6 | 80 | 43 | 12 | 1 | 27 | 4 |
| '39 | 6 | 21 | 4 | 508 | 34 | 80 | 3 | 2 | 73 | 7 | 9 | 181 | 85 | 28 | 28 | 7 | 12 | 34 | 23 | 115 | 91 | 43 | 4 | 64 | 6 |
| '38 | 6 | 12 | 1 | 578 | 17 | 23 | 1 | 2 | 58 | 6 | 21 | 90 | 41 | 35 | 24 | 15 | 12 | 16 | 17 | 63 | 57 | 46 | | 34 | 1 |
| '37 | 28 | 41 | 18 | 1117 | 68 | 237 | 71 | 15 | 155 | 33 | 42 | 322 | 168 | 107 | 53 | 40 | 23 | 65 | 66 | 360 | 229 | 169 | 3 | 103 | 21 |
| '36 | 13 | 30 | 4 | 1201 | 51 | 118 | 5 | 2 | 81 | 3 | 19 | 151 | 110 | 88 | 27 | 21 | 12 | 28 | 25 | 123 | 153 | 123 | 5 | 85 | 19 |
| '35 | 2 | 14 | 3 | 708 | 36 | 80 | 2 | 4 | 51 | 6 | 15 | 107 | 68 | 45 | 31 | 25 | 11 | 32 | 23 | 59 | 76 | 74 | 2 | 64 | 16 |
| '34 | 3 | 6 | | 414 | 10 | 20 | 1 | 2 | 26 | 6 | 8 | 46 | 33 | 12 | 16 | 6 | 2 | 13 | 8 | 50 | 41 | 35 | | 32 | 1 |
| Before '34 | 10 | 23 | 7 | 1429 | 78 | 77 | 4 | 10 | 43 | 13 | 15 | 175 | 92 | 97 | 60 | 20 | 9 | 44 | 31 | 91 | 120 | 214 | 4 | 122 | 10 |
| Unid.* | | | | 20 | | 5 | | 5 | 9 | 2 | 1 | 4 | 3 | 2 | 1 | | 2 | | 1 | 2 | 90 | 1 | 1 | 3 | |
| Total | 78 | 153 | 42 | 6477 | 313 | 664 | 24 | 42 | 557 | 80 | 143 | 1235 | 597 | 445 | 251 | 153 | 89 | 250 | 204 | 984 | 931 | 725 | 21 | 547 | 80 |
| **HUDSON** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 492 | 349 | 271 | 5840 | 1504 | 898 | 143 | 649 | 1229 | 889 | 392 | 7756 | 2590 | 1439 | 1120 | 586 | 756 | 351 | 923 | 1781 | 5227 | 2492 | 217 | 821 | 362 |
| '49 | 1418 | 775 | 1104 | 9956 | 3175 | 1718 | 289 | 1005 | 2937 | 2189 | 966 | 13837 | 5640 | 3340 | 2855 | 1857 | 2598 | 831 | 1859 | 2971 | 8253 | 3928 | 1050 | 3354 | 1057 |
| '48 | 1078 | 394 | 612 | 9099 | 897 | 1456 | 215 | 606 | 2164 | 1439 | 486 | 7329 | 3140 | 1896 | 1618 | 1148 | 1276 | 581 | 1400 | 2791 | 7840 | 2145 | 653 | 2173 | 449 |
| '47 | 694 | 383 | 427 | 7515 | 619 | 1083 | 158 | 368 | 1785 | 1084 | 421 | 5646 | 2424 | 1462 | 1090 | 891 | 798 | 453 | 1024 | 2305 | 5962 | 1386 | 421 | 1637 | 363 |
| '46 | 932 | 419 | 365 | 7791 | 654 | 1112 | 151 | 397 | 1778 | 1023 | 423 | 5451 | 2524 | 1480 | 1145 | 916 | 690 | 494 | 982 | 2328 | 5836 | 1380 | 380 | 1473 | 363 |
| '45-'42 | 602 | 271 | 183 | 3120 | 440 | 416 | 53 | 97 | 870 | 500 | 320 | 2246 | 1148 | 782 | 666 | 406 | 345 | 290 | 352 | 923 | 2456 | 605 | 273 | 691 | 183 |
| '41 | 1002 | 519 | 316 | 9423 | 753 | 1248 | 157 | 326 | 1926 | 907 | 435 | 5548 | 2993 | 1647 | 1106 | 910 | 631 | 580 | 1013 | 2513 | 6418 | 1299 | 291 | 1467 | 321 |
| '40 | 760 | 376 | 274 | 8273 | 760 | 1040 | 150 | 256 | 1638 | 703 | 401 | 5198 | 2951 | 1654 | 969 | 739 | 622 | 457 | 974 | 2173 | 5145 | 1249 | 270 | 1379 | 323 |
| '39 | 411 | 217 | 138 | 4824 | 517 | 541 | 72 | 150 | 941 | 449 | 207 | 2338 | 1162 | 845 | 693 | 381 | 379 | 356 | 472 | 1207 | 2246 | 749 | 126 | 830 | 141 |
| '38 | 244 | 131 | 84 | 3115 | 473 | 381 | 53 | 69 | 715 | 298 | 216 | 1304 | 813 | 643 | 638 | 278 | 300 | 252 | 354 | 988 | 1249 | 749 | 73 | 549 | 124 |
| '37 | 578 | 368 | 163 | 5508 | 1012 | 997 | 124 | 123 | 1249 | 620 | 401 | 3138 | 1992 | 1216 | 1295 | 627 | 410 | 504 | 801 | 2088 | 3709 | 1491 | 178 | 1183 | 281 |
| '36 | 327 | 219 | 118 | 4633 | 578 | 573 | 84 | 83 | 872 | 288 | 274 | 1817 | 1546 | 947 | 785 | 386 | 190 | 353 | 421 | 1586 | 2095 | 1186 | 120 | 769 | 327 |
| '35 | 104 | 123 | 52 | 2743 | 259 | 258 | 22 | 32 | 250 | 123 | 120 | 606 | 701 | 461 | 467 | 158 | 78 | 155 | 145 | 581 | 659 | 534 | 36 | 334 | 166 |
| '34 | 63 | 58 | 23 | 1293 | 146 | 177 | 15 | 14 | 257 | 62 | 42 | 260 | 232 | 238 | 204 | 85 | 35 | 129 | 100 | 437 | 308 | 247 | 16 | 161 | 54 |
| Before '34 | 65 | 62 | 27 | 2758 | 286 | 341 | 28 | 34 | 243 | 85 | 62 | 477 | 429 | 418 | 331 | 129 | 52 | 320 | 162 | 542 | 610 | 486 | 31 | 321 | 81 |
| Unid.* | 9 | 32 | 48 | 24 | 13 | 24 | 5 | 302 | 45 | 95 | 24 | 117 | 23 | 8 | 17 | 7 | 46 | 5 | 31 | 6 | 923 | 9 | 15 | 53 | 1 |
| Total | 8969 | 4675 | 4025 | 83915 | 12185 | 12282 | 1697 | 4511 | 18896 | 10752 | 5190 | 63068 | 30308 | 18476 | 14899 | 9494 | 9206 | 6111 | 11013 | 25220 | 58934 | 19914 | 4150 | 17192 | 4569 |
| **HUPMOBILE** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '41 | 1 | 3 | | 14 | 3 | 1 | | 3 | 15 | 3 | | 1 | 8 | 7 | 3 | 7 | | | 2 | 1 | 21 | 1 | 1 | 1 | |
| '40 | | | | 19 | 1 | 2 | | 1 | 2 | 1 | | 2 | 3 | | 2 | 2 | | | 1 | 3 | 4 | 2 | | | |
| '39 | | 5 | | 147 | 6 | 17 | | 2 | 9 | 2 | | 79 | 18 | 10 | 2 | 2 | 4 | | 2 | 23 | 75 | 45 | 2 | 6 | 2 |
| '38 | 2 | 6 | 2 | 92 | 15 | 26 | 1 | 7 | 8 | 4 | | 89 | 9 | 14 | 3 | 3 | 10 | | 5 | 50 | 37 | 36 | | 9 | 1 |
| '37 | 1 | 2 | 1 | 26 | 1 | 2 | 1 | | 1 | | | 15 | 3 | 1 | 2 | 2 | | | 1 | 1 | 8 | 2 | 1 | 3 | |
| '36 | | 4 | 1 | 90 | 13 | 32 | | 3 | 6 | 2 | 5 | 35 | 9 | 19 | 3 | 10 | 7 | 5 | 3 | 23 | 9 | 19 | | 10 | 8 |
| '35 | 2 | 12 | 2 | 355 | 29 | 56 | 3 | 5 | 13 | 8 | 9 | 73 | 38 | 48 | 24 | 18 | 6 | 12 | 19 | 68 | 21 | 62 | | 37 | 14 |
| '34 | 1 | 5 | | 163 | 6 | 35 | 1 | 4 | 12 | 6 | | 33 | 14 | 15 | 4 | 15 | 5 | 3 | 8 | 50 | 23 | 35 | | 11 | 3 |
| Before '34 | 13 | 23 | 7 | 1273 | 55 | 148 | 8 | 18 | 56 | 27 | 14 | 264 | 75 | 169 | 66 | 65 | 18 | 35 | 67 | 150 | 144 | 184 | 11 | 137 | 16 |
| Unid.* | | | | 8 | 2 | 1 | | 3 | 2 | 1 | | 5 | 6 | 1 | | 2 | | 1 | 1 | 3 | 34 | 5 | 1 | 1 | |
| Total | 21 | 80 | 19 | 2212 | 131 | 320 | 14 | 46 | 124 | 54 | 29 | 576 | 182 | 294 | 109 | 126 | 50 | 56 | 109 | 389 | 377 | 381 | 16 | 211 | 44 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# AND MODEL YEAR—Continued

| Model | Yr. | Neb. | Nev. | N. H. | N. J. | N.M. | N. Y. | N. C. | N. D. | Ohio | Okla. | Ore. | Pa. | R. I. | S. C. | S. D. | Tenn. | Tex. | Utah | Vt. | Va. | Wash. | W.Va. | Wis. | Wyo. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DODGE | '50 | 938 | 53 | 418 | 3081 | 624 | 9405 | 1476 | 245 | 5963 | 1116 | 722 | 6302 | 491 | 756 | 564 | 1998 | 4362 | 359 | 184 | 1435 | 2261 | 689 | 963 | 193 | 63925 |
| | '49 | 2825 | 317 | 932 | 10441 | 1082 | 36404 | 5114 | 1150 | 17937 | 3265 | 3456 | 21230 | 1600 | 2828 | 1376 | 4290 | 16571 | 1200 | 680 | 4745 | 4511 | 1529 | 5700 | 789 | 277562 |
| | '48 | 1524 | 281 | 836 | 8315 | 677 | 22436 | 2988 | 744 | 12787 | 2330 | 2244 | 15374 | 1068 | 1573 | 1060 | 2849 | 9175 | 959 | 471 | 3731 | 3262 | 1047 | 4313 | 464 | 200620 |
| | '47 | 1579 | 287 | 749 | 9077 | 710 | 24733 | 3457 | 641 | 14646 | 2261 | 2341 | 16779 | 1032 | 1538 | 1062 | 2695 | 16782 | 929 | 468 | 3677 | 3266 | 2056 | 4574 | 484 | 214048 |
| | '46 | 974 | 184 | 465 | 6249 | 556 | 15224 | 2425 | 490 | 9613 | 1647 | 1772 | 11384 | 669 | 1111 | 688 | 1770 | 7013 | 659 | 351 | 2540 | 2399 | 1473 | 3319 | 312 | 145943 |
| | '45-'42 | 507 | 110 | 159 | 2181 | 278 | 5306 | 1184 | 236 | 4162 | 804 | 1201 | 3884 | 304 | 590 | 267 | 1106 | 3982 | 392 | 131 | 798 | 1447 | 642 | 1096 | 170 | 60672 |
| | '41 | 1443 | 323 | 608 | 6880 | 634 | 20640 | 3534 | 567 | 15956 | 2631 | 3535 | 15361 | 1223 | 1640 | 934 | 3376 | 11089 | 1041 | 437 | 3855 | 4862 | 2147 | 4459 | 467 | 218349 |
| | '40 | 1280 | 241 | 558 | 7323 | 569 | 16904 | 2900 | 495 | 12871 | 2199 | 2358 | 13126 | 1020 | 1308 | 736 | 2624 | 8798 | 970 | 392 | 3336 | 3432 | 1990 | 4210 | 376 | 181342 |
| | '39 | 1229 | 206 | 596 | 6949 | 485 | 16906 | 2983 | 374 | 10922 | 1952 | 2061 | 10368 | 1090 | 1201 | 671 | 2377 | 7609 | 791 | 376 | 2614 | 3138 | 1429 | 3880 | 369 | 162237 |
| | '38 | 696 | 108 | 381 | 4513 | 300 | 10580 | 1283 | 229 | 5456 | 1254 | 1113 | 6474 | 567 | 579 | 389 | 1319 | 3464 | 484 | 276 | 1502 | 1648 | 967 | 2232 | 194 | 90008 |
| | '37 | 1431 | 305 | 808 | 10301 | 605 | 22903 | 2482 | 484 | 15125 | 2279 | 3239 | 17280 | 1509 | 1310 | 686 | 2646 | 6454 | 1185 | 527 | 2817 | 4058 | 2427 | 6548 | 448 | 212571 |
| | '36 | 1356 | 220 | 589 | 7242 | 427 | 17000 | 1611 | 358 | 11721 | 1817 | 2900 | 12467 | 1067 | 807 | 567 | 1979 | 3974 | 1067 | 404 | 2198 | 3570 | 1991 | 5078 | 381 | 164770 |
| | '35 | 732 | 120 | 236 | 2714 | 186 | 6968 | 671 | 228 | 4354 | 1059 | 1303 | 4854 | 406 | 423 | 289 | 749 | 1781 | 472 | 173 | 1090 | 1741 | 862 | 2540 | 193 | 74434 |
| | '34 | 229 | 49 | 121 | 1235 | 72 | 3222 | 289 | 61 | 1527 | 369 | 559 | 2232 | 202 | 166 | 95 | 335 | 650 | 193 | 78 | 344 | 849 | 456 | 795 | 62 | 25626 |
| | Before '34 | 864 | 111 | 197 | 1749 | 139 | 5252 | 534 | 233 | 3162 | 796 | 1185 | 3864 | 239 | 242 | 324 | 517 | 1423 | 242 | 192 | 649 | 1554 | 746 | 1767 | 168 | 57686 |
| | Unid.* | 42 | 1 | 5 | 66 | 16 | 69 | 4 | 1 | 71 | 25 | 7 | 138 | 10 | 6 | 3 | 132 | 68 | 1 | | 13 | 3 | 1 | 44 | 4 | 5426 |
| | Total | 17449 | 2919 | 7604 | 90029 | 7589 | 227852 | 32545 | 6858 | 146405 | 25676 | 29998 | 160677 | 12786 | 15880 | 9601 | 30530 | 97188 | 10806 | 5133 | 38133 | 43019 | 21123 | 61217 | 5066 | 2178253 |
| FORD | '50 | 9960 | 617 | 2089 | 16896 | 3376 | 43328 | 16028 | 2834 | 36458 | 9896 | 6702 | 40241 | 2833 | 9012 | 3360 | 12830 | 44658 | 2901 | 1068 | 12822 | 13038 | 4811 | 8517 | 1224 | 637106 |
| | '49 | 13221 | 1227 | 2682 | 25813 | 4423 | 68821 | 26445 | 6019 | 60853 | 13519 | 12119 | 58921 | 4293 | 14260 | 5637 | 19351 | 69637 | 4896 | 1926 | 18638 | 17055 | 6892 | 21223 | 2710 | 1004357 |
| | '48 | 3789 | 282 | 1068 | 5153 | 1143 | 14632 | 6541 | 1442 | 12680 | 8350 | 2919 | 11084 | 851 | 3489 | 1642 | 4752 | 18619 | 1072 | 450 | 10625 | 4586 | 2217 | 6853 | 582 | 264882 |
| | '47 | 5852 | 526 | 1107 | 9483 | 1956 | 23385 | 11948 | 2505 | 22539 | 9951 | 4787 | 20508 | 1422 | 6247 | 2504 | 6795 | 29199 | 1853 | 754 | 11238 | 7301 | 4067 | 7560 | 1124 | 407741 |
| | '46 | 6012 | 430 | 1156 | 9300 | 1977 | 24917 | 14173 | 2945 | 21075 | 8413 | 4983 | 20643 | 1732 | 7750 | 3120 | 8422 | 33018 | 1776 | 764 | 8806 | 6280 | 4031 | 8532 | 1161 | 415879 |
| | '45-'42 | 2243 | 210 | 350 | 2917 | 976 | 6501 | 4853 | 1161 | 7202 | 3483 | 1888 | 5384 | 506 | 2639 | 1082 | 3884 | 15147 | 794 | 267 | 2183 | 2921 | 1260 | 2936 | 496 | 146891 |
| | '41 | 9783 | 778 | 1767 | 12252 | 3257 | 28774 | 23490 | 4930 | 33966 | 15753 | 7412 | 26809 | 2547 | 13706 | 4839 | 14225 | 65769 | 3381 | 1182 | 12774 | 9708 | 5890 | 14318 | 1900 | 644075 |
| | '40 | 8347 | 566 | 1624 | 9169 | 2242 | 22839 | 19182 | 3436 | 25049 | 12359 | 5731 | 20504 | 2243 | 12655 | 3777 | 10967 | 43153 | 2501 | 1033 | 10680 | 7089 | 4711 | 10682 | 1411 | 504279 |
| | '39 | 6949 | 424 | 1357 | 7037 | 1713 | 18129 | 13190 | 2404 | 19244 | 10347 | 4325 | 15527 | 1884 | 8968 | 3178 | 7977 | 30033 | 2214 | 823 | 8456 | 5214 | 3576 | 9467 | 1118 | 395183 |
| | '38 | 5253 | 389 | 839 | 5951 | 1105 | 15571 | 7510 | 1981 | 11476 | 7537 | 3412 | 11038 | 1328 | 4921 | 2415 | 4119 | 18638 | 1536 | 588 | 6491 | 3831 | 2373 | 6610 | 855 | 284572 |
| | '37 | 6279 | 561 | 1670 | 12339 | 1773 | 24386 | 11948 | 3104 | 34674 | 11440 | 7356 | 28220 | 2687 | 9462 | 4414 | 8036 | 27356 | 2870 | 1164 | 12476 | 9151 | 6432 | 18298 | 1382 | 534361 |
| | '36 | 7846 | 640 | 1801 | 10029 | 1874 | 30267 | 11995 | 2890 | 24906 | 11568 | 7599 | 23567 | 2241 | 10754 | 3646 | 8816 | 27199 | 3290 | 1160 | 7249 | 10284 | 6978 | 14359 | 1367 | 488960 |
| | '35 | 5756 | 457 | 1225 | 6834 | 1092 | 20996 | 7575 | 2546 | 14872 | 8490 | 4649 | 14292 | 1312 | 5811 | 2745 | 4934 | 16670 | 1790 | 789 | 6196 | 6132 | 3765 | 11860 | 931 | 332801 |
| | '34 | 2770 | 294 | 765 | 3321 | 651 | 10174 | 4399 | 1045 | 7317 | 4495 | 2471 | 7851 | 642 | 4258 | 1106 | 3069 | 10080 | 906 | 488 | 2879 | 3368 | 2301 | 4604 | 480 | 179049 |
| | Before '34 | 20526 | 1476 | 2805 | 13249 | 3586 | 32452 | 22642 | 9552 | 34898 | 20145 | 14648 | 28113 | 1997 | 21226 | 8906 | 14157 | 45756 | 3609 | 2253 | 12916 | 17587 | 11240 | 26432 | 2304 | 852276 |
| | Unid.* | 163 | 2 | | 72 | 91 | 109 | 39 | 17 | 206 | 181 | 32 | 436 | 92 | 167 | 28 | 631 | 278 | 8 | 1 | 61 | 23 | 11 | 173 | 16 | 19843 |
| | Total | 115349 | 8830 | 22386 | 149615 | 31167 | 398575 | 201959 | 48511 | 367316 | 154927 | 90443 | 333149 | 28990 | 133302 | 62404 | 132961 | 485210 | 35305 | 14899 | 139662 | 123577 | 68363 | 168744 | 19083 | 7081275 |
| FRAZER | '50 | 89 | | 36 | 209 | 24 | 653 | 45 | 26 | 452 | 60 | 137 | 702 | 25 | 15 | 63 | 50 | 162 | 61 | 13 | 99 | 225 | 23 | 49 | 32 | 8899 |
| | '49 | 269 | 30 | 43 | 400 | 122 | 1335 | 394 | 207 | 1495 | 188 | 378 | 1513 | 73 | 116 | 319 | 241 | 1061 | 129 | 50 | 252 | 293 | 184 | 747 | 82 | 21444 |
| | '48 | 676 | 85 | 94 | 1215 | 232 | 3252 | 730 | 272 | 2743 | 668 | 738 | 2329 | 125 | 175 | 426 | 485 | 2210 | 224 | 96 | 890 | 741 | 475 | 1377 | 199 | 48979 |
| | '47 | 777 | 98 | 155 | 1994 | 310 | 4994 | 1061 | 355 | 3349 | 676 | 1010 | 3064 | 215 | 387 | 559 | 594 | 2483 | 302 | 127 | 1113 | 1063 | 611 | 1343 | 226 | 57501 |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '40 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Before '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Unid.* | 21 | 2 | 2 | 40 | 13 | 99 | 60 | 3 | 36 | 49 | 3 | 62 | 15 | 21 | 16 | 22 | 102 | 15 | 3 | 37 | 9 | 37 | 23 | 10 | 1932 |
| | Total | 1802 | 215 | 330 | 3858 | 701 | 10333 | 2290 | 863 | 8075 | 1641 | 2296 | 7670 | 453 | 716 | 1383 | 1392 | 6018 | 731 | 299 | 2389 | 2331 | 1330 | 3539 | 549 | 134755 |
| GRAHAM | '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '41 | 8 | 6 | | 16 | 3 | 19 | 5 | | 74 | 3 | 40 | 45 | 1 | 1 | 2 | 5 | 15 | 4 | | 2 | 24 | 3 | 17 | 4 | 742 |
| | '40 | 7 | 4 | 2 | 21 | 2 | 51 | 1 | 2 | 98 | 2 | 25 | 69 | 4 | | 1 | 4 | 9 | 6 | 1 | 14 | 20 | 18 | 27 | 4 | 1135 |
| | '39 | 19 | 6 | 31 | 108 | | 354 | 4 | 2 | 259 | 18 | 91 | 234 | 10 | 2 | 4 | 11 | 42 | 15 | 1 | 21 | 40 | 42 | 91 | 6 | 2917 |
| | '38 | 14 | 8 | 4 | 61 | 2 | 132 | 2 | 5 | 151 | 7 | 83 | 120 | 7 | 2 | 4 | 7 | 31 | 21 | 3 | 18 | 73 | 19 | 53 | 3 | 2028 |
| | '37 | 25 | 33 | 32 | 288 | 10 | 582 | 25 | 6 | 687 | 24 | 271 | 563 | 26 | 10 | 18 | 30 | 71 | 74 | 19 | 39 | 220 | 105 | 205 | 9 | 6830 |
| | '36 | 13 | 12 | 22 | 109 | 1 | 318 | 10 | 13 | 337 | 36 | 166 | 279 | 20 | 5 | 9 | 15 | 39 | 61 | 8 | 22 | 157 | 50 | 108 | 12 | 4319 |
| | '35 | 7 | 5 | 7 | 112 | 2 | 283 | 28 | 8 | 220 | 18 | 163 | 250 | 8 | 3 | 6 | 13 | 37 | 34 | 7 | 21 | 102 | 23 | 72 | 8 | 2906 |
| | '34 | 6 | 3 | 9 | 23 | 2 | 144 | 3 | 1 | 88 | 9 | 57 | 94 | 1 | 2 | | 12 | 15 | 17 | 6 | 13 | 46 | 18 | 30 | 2 | 1392 |
| | Before '34 | 47 | 17 | 15 | 137 | 2 | 473 | 11 | 20 | 230 | 27 | 144 | 344 | 12 | 5 | 20 | 30 | 53 | 41 | 25 | 32 | 119 | 56 | 181 | 12 | 4855 |
| | Unid.* | 2 | 1 | | 6 | | 9 | | 1 | 9 | 1 | 3 | 10 | | | | | 3 | 2 | | | 2 | | 2 | | 204 |
| | Total | 148 | 96 | 122 | 879 | 24 | 2365 | 87 | 58 | 2153 | 145 | 1043 | 2029 | 89 | 30 | 64 | 127 | 318 | 274 | 70 | 182 | 842 | 332 | 796 | 60 | 27400 |
| HUDSON | '50 | 576 | 122 | 284 | 2354 | 331 | 8535 | 832 | 213 | 3838 | 590 | 930 | 4645 | 269 | 473 | 436 | 794 | 2565 | 578 | 112 | 946 | 1359 | 344 | 560 | 208 | 60969 |
| | '49 | 1004 | 200 | 439 | 4854 | 713 | 11351 | 2241 | 663 | 9217 | 1169 | 1778 | 9182 | 590 | 1202 | 806 | 2098 | 6682 | 1293 | 365 | 2899 | 1855 | 855 | 3532 | 652 | 144400 |
| | '48 | 883 | 179 | 367 | 3732 | 389 | 9389 | 1705 | 361 | 6618 | 1332 | 1283 | 6987 | 562 | 908 | 393 | 1497 | 4797 | 535 | 182 | 2004 | 1727 | 849 | 2286 | 230 | 101960 |
| | '47 | 567 | 87 | 279 | 2522 | 256 | 6437 | 1257 | 190 | 4832 | 812 | 917 | 5254 | 408 | 744 | 239 | 1002 | 3249 | 366 | 150 | 1335 | 1501 | 730 | 1774 | 192 | 75648 |
| | '46 | 543 | 98 | 257 | 2150 | 224 | 6138 | 1283 | 184 | 4822 | 830 | 1302 | 6214 | 426 | 745 | 285 | 966 | 2857 | 389 | 168 | 1255 | 1543 | 682 | 1837 | 169 | 74753 |
| | '45-'42 | 304 | 52 | 103 | 917 | 129 | 1922 | 733 | 50 | 1992 | 404 | 515 | 1669 | 139 | 451 | 96 | 436 | 1436 | 358 | 62 | 322 | 774 | 314 | 853 | 104 | 32373 |
| | '41 | 474 | 123 | 270 | 2581 | 238 | 4878 | 1221 | 110 | 5395 | 650 | 1277 | 4977 | 433 | 851 | 171 | 813 | 2363 | 470 | 207 | 1039 | 2089 | 817 | 2289 | 210 | 77811 |
| | '40 | 408 | 78 | 304 | 2180 | 205 | 4710 | 1158 | 133 | 5514 | 648 | 932 | 4619 | 379 | 720 | 190 | 697 | 2129 | 358 | 182 | 933 | 1407 | 758 | 2106 | 192 | 69674 |
| | '39 | 231 | 45 | 205 | 1197 | 106 | 3021 | 680 | 72 | 2315 | 462 | 485 | 2288 | 249 | 413 | 113 | 342 | 1042 | 235 | 127 | 537 | 733 | 339 | 1016 | 92 | 36707 |
| | '38 | 208 | 32 | 130 | 970 | 66 | 2384 | 368 | 82 | 1592 | 336 | 533 | 1821 | 108 | 236 | 90 | 283 | 849 | 156 | 85 | 313 | 779 | 283 | 788 | 71 | 26632 |
| | '37 | 403 | 65 | 256 | 2003 | 138 | 4861 | 686 | 161 | 4790 | 621 | 1132 | 4423 | 275 | 474 | 153 | 671 | 1461 | 372 | 207 | 883 | 1872 | 700 | 1704 | 171 | 68122 |
| | '36 | 322 | 60 | 187 | 1022 | 80 | 3167 | 333 | 100 | 2611 | 418 | 876 | 2281 | 242 | 215 | 125 | 336 | 944 | 290 | 171 | 421 | 1456 | 476 | 1304 | 113 | 38169 |
| | '35 | 137 | 18 | 93 | 399 | 40 | 1302 | 168 | 52 | 1067 | 209 | 373 | 792 | 68 | 98 | 87 | 111 | 382 | 114 | 74 | 201 | 595 | 178 | 599 | 77 | 16388 |
| | '34 | 103 | 11 | 73 | 306 | 19 | 851 | 122 | 15 | 455 | 92 | 171 | 511 | 51 | 58 | 44 | 49 | 140 | 63 | 57 | 110 | 276 | 113 | 313 | 35 | 8892 |
| | Before '34 | 125 | 21 | 143 | 513 | 22 | 1503 | 140 | 43 | 949 | 103 | 228 | 871 | 73 | 69 | 46 | 93 | 212 | 91 | 112 | 118 | 347 | 172 | 653 | 25 | 14929 |
| | Unid.* | 5 | 1 | | 16 | 7 | 33 | 3 | 2 | 29 | 8 | | 22 | 4 | 4 | 2 | 49 | 22 | 1 | 2 | 7 | 2 | 2 | 17 | | 2103 |
| | Total | 6293 | 1180 | 3390 | 27716 | 2960 | 68563 | 12930 | 2431 | 56926 | 8884 | 12730 | 55536 | 4273 | 7550 | 3276 | 10017 | 31120 | 5009 | 2283 | 12823 | 18314 | 7614 | 21632 | 2531 | 847341 |
| HUPMOBILE | '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '41 | | | | 6 | | 7 | | | 24 | 3 | 6 | 7 | | 2 | | 2 | 4 | | | 3 | 2 | | 1 | | 183 |
| | '40 | | | | | | 4 | | | 2 | | | 1 | | | | 2 | 1 | 1 | | 4 | 1 | | 1 | | 82 |
| | '39 | 1 | 1 | | 17 | | 106 | | 3 | 18 | 6 | 21 | 11 | 4 | | 1 | 5 | 3 | 6 | 2 | 9 | 22 | 4 | 7 | | 696 |
| | '38 | 1 | | 4 | 28 | | 78 | | 1 | 33 | 7 | 34 | 25 | 4 | 1 | 1 | 11 | 8 | 3 | | 11 | 24 | 6 | 17 | 1 | 701 |
| | '37 | 2 | | 1 | 1 | | 3 | | 1 | 10 | 5 | | 1 | | | | 1 | 1 | | | 1 | 3 | | | | 104 |
| | '36 | 10 | | 3 | 34 | 1 | 66 | | | 53 | 9 | 13 | 21 | 4 | 2 | 2 | 5 | 13 | 1 | 1 | 5 | 20 | 3 | 22 | 2 | 614 |
| | '35 | 23 | | 4 | 67 | 4 | 162 | 8 | 3 | 78 | 7 | 36 | 133 | 51 | 2 | 2 | 11 | 19 | 8 | 2 | 17 | 41 | 18 | 38 | 1 | 1667 |
| | '34 | 3 | 1 | 4 | 23 | 1 | 91 | 7 | 2 | 55 | 12 | 14 | 63 | 7 | 7 | 2 | 3 | 5 | 1 | 3 | 6 | 12 | 11 | 23 | | 629 |
| | Before '34 | 54 | 8 | 27 | 235 | 2 | 659 | 19 | 13 | 299 | 37 | 98 | 526 | 41 | 18 | 33 | 30 | 61 | 17 | 36 | 65 | 157 | 42 | 98 | 8 | 5627 |
| | Unid.* | | | | 3 | 1 | 6 | 3 | | 3 | | | 3 | 4 | | | 4 | 1 | 1 | | | | | | | 110 |
| | Total | 94 | 10 | 43 | 412 | 9 | 1182 | 37 | 23 | 573 | 86 | 223 | 791 | 115 | 32 | 41 | 71 | 116 | 38 | 44 | 117 | 282 | 84 | 297 | 12 | 16572 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

## ● TOTAL REGISTRATIONS ●

# CARS IN USE BY MAKES, STATES

| Model | Yr. | Ala. | Ariz. | Ark. | Calif. | Colo. | Conn. | Del. | D. C. | Fla. | Ga. | Idaho | Ill. | Ind. | Iowa | Kan. | Ky. | La. | Me. | Md. | Mass. | Mich. | Minn. | Miss. | Mo. | Mont. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KAISER | '50 | 172 | 55 | 186 | 963 | 203 | 361 | 67 | 89 | 231 | 183 | 101 | 1960 | 1074 | 1110 | 418 | 212 | 396 | 186 | 449 | 607 | 2200 | 1229 | 102 | 425 | 61 |
| | '49 | 799 | 161 | 751 | 2154 | 531 | 633 | 199 | 221 | 1347 | 896 | 496 | 6403 | 2791 | 2631 | 1421 | 677 | 1529 | 480 | 1011 | 1296 | 4873 | 2464 | 540 | 1757 | 442 |
| | '48 | 975 | 325 | 690 | 5375 | 682 | 725 | 213 | 315 | 1561 | 932 | 557 | 9043 | 3403 | 3125 | 1918 | 1167 | 1343 | 261 | 1094 | 1664 | 6553 | 2474 | 536 | 2436 | 498 |
| | '47 | 743 | 347 | 446 | 5291 | 599 | 793 | 153 | 253 | 1397 | 955 | 374 | 4465 | 1928 | 1094 | 1041 | 904 | 856 | 364 | 783 | 1579 | 4712 | 1131 | 438 | 1295 | 480 |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '40 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Before '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Unid.* | 58 | 6 | 65 | 317 | 11 | 13 | 6 | 63 | 66 | 60 | 12 | 132 | 46 | 41 | 29 | 29 | 73 | 7 | 30 | 28 | 213 | 248 | 44 | 51 | 7 |
| | Total | 2747 | 894 | 2137 | 14090 | 1986 | 2525 | 656 | 911 | 4802 | 3028 | 1540 | 22003 | 9242 | 8001 | 4818 | 3209 | 4193 | 1278 | 3357 | 5174 | 18651 | 7546 | 1758 | 8896 | 1488 |
| LA SALLE | '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '40 | 111 | 113 | 57 | 2235 | 198 | 529 | 78 | 158 | 607 | 274 | 37 | 1514 | 408 | 145 | 109 | 183 | 138 | 142 | 306 | 1010 | 616 | 421 | 74 | 491 | 45 |
| | '39 | 126 | 110 | 57 | 2853 | 178 | 461 | 66 | 138 | 548 | 258 | 44 | 1128 | 333 | 172 | 119 | 147 | 139 | 120 | 267 | 763 | 674 | 269 | 61 | 335 | 32 |
| | '38 | 69 | 61 | 25 | 1833 | 100 | 296 | 37 | 79 | 282 | 131 | 19 | 547 | 226 | 101 | 70 | 81 | 65 | 69 | 151 | 554 | 380 | 138 | 32 | 207 | 22 |
| | '37 | 117 | 120 | 57 | 3449 | 191 | 579 | 74 | 97 | 518 | 182 | 47 | 1049 | 418 | 188 | 133 | 161 | 114 | 128 | 297 | 1008 | 638 | 257 | 57 | 372 | 43 |
| | '36 | 28 | 44 | 17 | 1473 | 74 | 155 | 20 | 26 | 163 | 64 | 8 | 352 | 131 | 74 | 45 | 42 | 28 | 48 | 83 | 318 | 196 | 91 | 16 | 136 | 12 |
| | '35 | 10 | 20 | 9 | 964 | 33 | 94 | 11 | 10 | 63 | 28 | 7 | 142 | 66 | 34 | 25 | 29 | 22 | 22 | 43 | 151 | 76 | 31 | 9 | 79 | 6 |
| | '34 | 4 | 11 | 5 | 340 | 14 | 29 | 5 | | 30 | 11 | 5 | 37 | 24 | 13 | 6 | 14 | 5 | 11 | 16 | 53 | 38 | 10 | 3 | 22 | 1 |
| | Before '34 | 8 | 16 | 3 | 941 | 29 | 117 | 11 | 11 | 46 | 12 | 4 | 99 | 49 | 26 | 4 | 13 | 8 | 14 | 41 | 135 | 51 | 58 | 9 | 60 | 8 |
| | Unid.* | 9 | 24 | 9 | 26 | 2 | 9 | 2 | 55 | 51 | 48 | | 46 | 17 | 4 | 1 | 9 | 15 | | 10 | 27 | 77 | 1 | 3 | 13 | |
| | Total | 482 | 521 | 239 | 14114 | 819 | 2269 | 304 | 574 | 2310 | 1005 | 171 | 4914 | 1863 | 757 | 512 | 689 | 532 | 554 | 1214 | 4019 | 2749 | 1296 | 263 | 1619 | 169 |
| LINCOLN | '50 | 231 | 26 | 80 | 986 | 159 | 167 | 30 | 110 | 437 | 278 | 64 | 852 | 338 | 246 | 168 | 84 | 153 | 48 | 157 | 394 | 1004 | 216 | 72 | 206 | 45 |
| | '49 | 636 | 305 | 432 | 3165 | 797 | 949 | 154 | 436 | 2436 | 1332 | 370 | 4969 | 1996 | 988 | 962 | 718 | 1150 | 242 | 792 | 1505 | 3189 | 1001 | 528 | 1261 | 322 |
| | '48 | 83 | 57 | 61 | 3393 | 65 | 144 | 19 | 54 | 357 | 130 | 24 | 602 | 145 | 98 | 102 | 59 | 124 | 27 | 102 | 252 | 314 | 99 | 66 | 118 | 28 |
| | '47 | 152 | 109 | 111 | 2838 | 178 | 314 | 47 | 123 | 720 | 260 | 82 | 1503 | 400 | 190 | 195 | 112 | 299 | 86 | 238 | 651 | 831 | 223 | 132 | 342 | 53 |
| | '46 | 98 | 86 | 56 | 1529 | 132 | 230 | 32 | 46 | 489 | 199 | 40 | 970 | 288 | 167 | 153 | 131 | 253 | 56 | 166 | 449 | 626 | 208 | 78 | 292 | 38 |
| | '45-'42 | 68 | 41 | 30 | 789 | 61 | 78 | 14 | 39 | 236 | 107 | 24 | 317 | 101 | 56 | 60 | 41 | 140 | 19 | 65 | 176 | 275 | 100 | 42 | 104 | 14 |
| | '41 | 151 | 135 | 79 | 3005 | 230 | 348 | 42 | 110 | 690 | 257 | 60 | 880 | 356 | 219 | 247 | 147 | 339 | 88 | 218 | 641 | 655 | 273 | 137 | 428 | 59 |
| | '40 | 141 | 157 | 83 | 4208 | 274 | 319 | 36 | 100 | 684 | 235 | 64 | 867 | 311 | 243 | 236 | 162 | 254 | 74 | 166 | 635 | 701 | 286 | 96 | 566 | 63 |
| | '39 | 135 | 129 | 67 | 3223 | 227 | 224 | 28 | 53 | 501 | 218 | 73 | 653 | 286 | 177 | 174 | 151 | 242 | 76 | 141 | 396 | 652 | 253 | 99 | 263 | 66 |
| | '38 | 79 | 112 | 50 | 2544 | 142 | 117 | 22 | 36 | 338 | 132 | 59 | 411 | 201 | 147 | 124 | 94 | 122 | 56 | 112 | 325 | 439 | 218 | 42 | 217 | 36 |
| | '37 | 92 | 149 | 67 | 3049 | 212 | 195 | 26 | 34 | 394 | 179 | 57 | 490 | 254 | 233 | 157 | 108 | 134 | 101 | 136 | 477 | 548 | 346 | 86 | 289 | 91 |
| | '36 | 20 | 50 | 17 | 1677 | 126 | 56 | 9 | 13 | 152 | 28 | 45 | 172 | 116 | 89 | 61 | 35 | 27 | 12 | 48 | 184 | 169 | 119 | 10 | 89 | 43 |
| | '35 | 8 | 8 | 1 | 161 | 3 | 9 | 1 | 2 | 8 | 4 | 1 | 14 | 3 | 2 | 10 | 9 | 3 | 1 | 6 | 13 | 4 | 9 | 1 | 7 | 1 |
| | '34 | 4 | 2 | 3 | 94 | 7 | 7 | 1 | | 10 | 3 | 1 | 19 | 3 | 3 | 1 | 5 | 2 | 3 | 5 | 19 | 13 | 9 | 2 | 3 | |
| | Before '34 | 6 | 10 | 4 | 501 | 17 | 29 | 3 | 5 | 19 | 7 | 5 | 64 | 25 | 17 | 9 | 9 | 14 | 10 | 18 | 49 | 23 | 19 | 4 | 28 | 6 |
| | Unid.* | 3 | 10 | 14 | 8 | 8 | 15 | 1 | 68 | 29 | 40 | 2 | 29 | 14 | 6 | 4 | 4 | 14 | | 9 | 4 | 79 | 2 | 9 | 11 | |
| | Total | 2107 | 1386 | 1115 | 31150 | 2838 | 3201 | 465 | 1229 | 7499 | 3408 | 991 | 12812 | 4536 | 2881 | 2963 | 1837 | 3270 | 899 | 2395 | 6080 | 9522 | 3384 | 1403 | 4201 | 885 |
| MERCURY | '50 | 2841 | 514 | 884 | 11533 | 1610 | 2373 | 354 | 1307 | 4482 | 3680 | 604 | 10210 | 3570 | 3800 | 2551 | 988 | 2742 | 983 | 1900 | 3870 | 12532 | 3632 | 1021 | 3837 | 502 |
| | '49 | 3624 | 1203 | 1745 | 12852 | 3111 | 3430 | 581 | 1669 | 7225 | 5666 | 1343 | 19013 | 6978 | 6478 | 4835 | 3123 | 4914 | 1071 | 3105 | 6997 | 17259 | 5639 | 2203 | 5685 | 1408 |
| | '48 | 533 | 208 | 371 | 12115 | 575 | 539 | 92 | 218 | 1325 | 902 | 221 | 3568 | 1342 | 819 | 712 | 656 | 888 | 154 | 496 | 1454 | 3321 | 821 | 438 | 1124 | 193 |
| | '47 | 626 | 439 | 552 | 11136 | 1002 | 1134 | 162 | 285 | 1991 | 1432 | 374 | 5444 | 1829 | 1315 | 1193 | 753 | 1242 | 349 | 871 | 2609 | 5440 | 1395 | 584 | 1712 | 456 |
| | '46 | 985 | 405 | 624 | 7516 | 1013 | 1073 | 143 | 229 | 1838 | 1770 | 384 | 4708 | 1721 | 1469 | 1093 | 883 | 1397 | 259 | 770 | 2132 | 4538 | 1736 | 730 | 1743 | 428 |
| | '45-'42 | 324 | 147 | 221 | 1632 | 301 | 210 | 32 | 49 | 626 | 642 | 132 | 1130 | 433 | 373 | 289 | 227 | 515 | 90 | 67 | 406 | 1241 | 481 | 293 | 647 | 114 |
| | '41 | 1461 | 586 | 739 | 10457 | 1191 | 1021 | 151 | 212 | 2281 | 2056 | 497 | 3997 | 1859 | 1437 | 1262 | 924 | 1580 | 318 | 804 | 1820 | 4897 | 1929 | 880 | 1774 | 441 |
| | '40 | 991 | 446 | 500 | 10004 | 1164 | 973 | 121 | 179 | 1776 | 1601 | 401 | 3925 | 1644 | 1408 | 1139 | 817 | 1081 | 349 | 849 | 1871 | 4527 | 1773 | 580 | 1603 | 344 |
| | '39 | 630 | 272 | 358 | 7547 | 844 | 756 | 88 | 134 | 1237 | 1134 | 246 | 2718 | 1051 | 1091 | 847 | 574 | 743 | 289 | 474 | 1274 | 3223 | 1309 | 390 | 1082 | 236 |
| | '38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Before '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Unid.* | 33 | 47 | 76 | 647 | 25 | 43 | 4 | 188 | 107 | 186 | 14 | 162 | 91 | 96 | 28 | 33 | 70 | 12 | 28 | 21 | 433 | 20 | 51 | 87 | 6 |
| | Total | 12248 | 4327 | 6070 | 95458 | 10856 | 11568 | 728 | 4468 | 22856 | 19050 | 4216 | 55775 | 20609 | 18386 | 13949 | 8979 | 15172 | 3474 | 9264 | 22454 | 67461 | 18735 | 7150 | 19294 | 4131 |
| NASH | '50 | 1235 | 375 | 717 | 8433 | 1761 | 1647 | 217 | 653 | 1804 | 1167 | 771 | 9337 | 4724 | 3032 | 2034 | 1127 | 1112 | 478 | 1549 | 3339 | 6319 | 3449 | 538 | 3169 | 393 |
| | '49 | 1195 | 638 | 872 | 7256 | 1283 | 1758 | 226 | 642 | 2259 | 1464 | 858 | 9838 | 4117 | 2541 | 2088 | 1342 | 1529 | 624 | 1606 | 3690 | 6835 | 3146 | 980 | 3352 | 730 |
| | '48 | 954 | 494 | 607 | 6943 | 902 | 1677 | 196 | 514 | 1833 | 1331 | 474 | 7466 | 2799 | 1492 | 1345 | 949 | 1249 | 500 | 1407 | 3484 | 6425 | 2127 | 676 | 2224 | 518 |
| | '47 | 864 | 481 | 528 | 7803 | 855 | 1750 | 176 | 427 | 1714 | 1211 | 466 | 6701 | 2261 | 1373 | 1264 | 951 | 1042 | 481 | 1256 | 3222 | 5567 | 2061 | 606 | 1993 | 428 |
| | '46 | 832 | 461 | 510 | 7086 | 797 | 1494 | 157 | 370 | 1735 | 1076 | 375 | 6374 | 2039 | 1205 | 1008 | 900 | 998 | 488 | 1124 | 2788 | 4965 | 1853 | 611 | 1939 | 379 |
| | '45-'42 | 313 | 179 | 126 | 2361 | 272 | 379 | 41 | 55 | 632 | 364 | 141 | 2702 | 728 | 474 | 470 | 277 | 263 | 168 | 296 | 769 | 1469 | 791 | 206 | 526 | 197 |
| | '41 | 403 | 388 | 317 | 7262 | 799 | 1256 | 134 | 167 | 1363 | 638 | 419 | 5580 | 2053 | 1233 | 1062 | 697 | 634 | 402 | 961 | 2152 | 4001 | 2094 | 300 | 1979 | 394 |
| | '40 | 372 | 283 | 243 | 4979 | 622 | 835 | 102 | 132 | 1096 | 441 | 221 | 4840 | 1552 | 901 | 678 | 564 | 455 | 314 | 1089 | 2343 | 3571 | 2096 | 1599 | 323 | |
| | '39 | 241 | 212 | 157 | 4565 | 437 | 618 | 72 | 96 | 748 | 317 | 182 | 3427 | 1049 | 708 | 424 | 393 | 209 | 286 | 517 | 1551 | 1510 | 1081 | 148 | 1399 | 249 |
| | '38 | 145 | 136 | 103 | 2555 | 268 | 444 | 49 | 73 | 452 | 175 | 111 | 1876 | 483 | 571 | 340 | 227 | 174 | 171 | 348 | 1013 | 703 | 1044 | 90 | 783 | 150 |
| | '37 | 209 | 228 | 142 | 4777 | 730 | 963 | 103 | 57 | 64 | 277 | 248 | 4549 | 1157 | 977 | 622 | 529 | 328 | 374 | 741 | 2294 | 1902 | 1526 | 126 | 997 | 321 |
| | '36 | 93 | 161 | 74 | 3381 | 417 | 517 | 39 | 37 | 316 | 168 | 135 | 1609 | 409 | 583 | 367 | 191 | 157 | 199 | 294 | 1071 | 549 | 710 | 73 | 493 | 222 |
| | '35 | 58 | 48 | 12 | 2505 | 104 | 138 | 25 | 7 | 101 | 45 | 27 | 413 | 214 | 117 | 65 | 63 | 62 | 54 | 178 | 271 | 119 | 205 | 28 | 201 | 63 |
| | '34 | 38 | 22 | 13 | 894 | 88 | 157 | 10 | 5 | 64 | 29 | 21 | 212 | 77 | 88 | 62 | 36 | 56 | 76 | 69 | 297 | 53 | 120 | 22 | 129 | 44 |
| | Before '34 | 28 | 65 | 26 | 2680 | 200 | 270 | 20 | 19 | 107 | 53 | 54 | 597 | 228 | 375 | 229 | 81 | 103 | 141 | 146 | 387 | 245 | 458 | 47 | 392 | 68 |
| | Unid.* | 5 | 43 | 49 | 17 | 17 | 30 | 3 | 232 | 23 | 63 | 5 | 118 | 9 | 8 | 6 | 4 | 45 | | 23 | 2 | 389 | 5 | 18 | 52 | |
| | Total | 6904 | 4211 | 4498 | 73849 | 9512 | 14031 | 1570 | 3506 | 14888 | 8816 | 4558 | 68719 | 23899 | 15678 | 12064 | 8351 | 8309 | 4718 | 11238 | 27959 | 43214 | 22231 | 4678 | 21227 | 4479 |
| OLDSMOBILE | '50 | 1775 | 627 | 928 | 11838 | 1481 | 2585 | 527 | 1512 | 2802 | 2736 | 75 | 10666 | 4898 | 3563 | 2177 | 1458 | 2322 | 645 | 2308 | 5426 | 12792 | 3791 | 941 | 3167 | 632 |
| | '49 | 2533 | 1000 | 1525 | 19968 | 2126 | 4289 | 871 | 1979 | 5568 | 3893 | 1185 | 19610 | 7504 | 5019 | 3567 | 3323 | 3868 | 1403 | 3723 | 10435 | 17384 | 5243 | 1673 | 5246 | 1349 |
| | '48 | 1279 | 622 | 821 | 12667 | 1111 | 2547 | 534 | 1024 | 3120 | 2007 | 612 | 13118 | 4643 | 2805 | 2236 | 1945 | 1714 | 619 | 2347 | 6385 | 11983 | 2853 | 940 | 3549 | 894 |
| | '47 | 1380 | 662 | 817 | 14247 | 1492 | 3031 | 576 | 1165 | 3416 | 2092 | 696 | 13816 | 5267 | 2905 | 2428 | 2162 | 1908 | 867 | 2485 | 7803 | 11985 | 2948 | 810 | 3967 | 688 |
| | '46 | 811 | 441 | 477 | 9502 | 940 | 1907 | 377 | 639 | 2203 | 1327 | 461 | 7890 | 3008 | 1660 | 1505 | 1301 | 1197 | 578 | 1651 | 4819 | 6086 | 1831 | 500 | 2322 | 404 |
| | '45-'42 | 545 | 357 | 287 | 5036 | 614 | 1165 | 176 | 278 | 1327 | 788 | 269 | 3929 | 1706 | 822 | 852 | 723 | 824 | 410 | 751 | 2505 | 3122 | 1041 | 341 | 1320 | 180 |
| | '41 | 1944 | 1312 | 1137 | 26148 | 2452 | 4819 | 796 | 1313 | 5228 | 2866 | 992 | 16063 | 7098 | 3450 | 3392 | 2896 | 2853 | 1486 | 3357 | 11050 | 11923 | 4102 | 1135 | 5555 | 931 |
| | '40 | 1335 | 831 | 772 | 21980 | 1697 | 3387 | 506 | 701 | 3403 | 2016 | 679 | 11075 | 5109 | 2510 | 2387 | 2192 | 1560 | 1221 | 2520 | 7821 | 7944 | 2924 | 783 | 4199 | 659 |
| | '39 | 902 | 642 | 535 | 16651 | 1210 | 2377 | 402 | 358 | 2060 | 1332 | 461 | 8861 | 2832 | 1949 | 1658 | 1493 | 1086 | 818 | 1699 | 5763 | 4332 | 2049 | 488 | 2835 | 441 |
| | '38 | 601 | 407 | 307 | 10301 | 863 | 1563 | 244 | 188 | 1606 | 829 | 338 | 4260 | 2085 | 1240 | 1063 | 992 | 714 | 586 | 1042 | 3582 | 2386 | 1498 | 315 | 1849 | 290 |
| | '37 | 848 | 766 | 541 | 19274 | 1758 | 2913 | 496 | 365 | 2382 | 1263 | 623 | 9018 | 4662 | 2389 | 1907 | 1730 | 934 | 1037 | 2109 | 6505 | 6585 | 2852 | 464 | 3447 | 515 |
| | '36 | 513 | 605 | 384 | 17267 | 1331 | 2180 | 370 | 294 | 1766 | 890 | 444 | 6451 | 3095 | 2023 | 1437 | 1227 | 710 | 868 | 1548 | 5674 | 4445 | 2376 | 288 | 2808 | 379 |
| | '35 | 213 | 321 | 190 | 11103 | 467 | 1055 | 170 | 95 | 685 | 357 | 230 | 2796 | 1853 | 1092 | 687 | 604 | 254 | 413 | 717 | 2341 | 1847 | 1492 | 115 | 1408 | 198 |
| | '34 | 66 | 131 | 60 | 3326 | 253 | 432 | 57 | 25 | 225 | 115 | 91 | 920 | 501 | 342 | 317 | 188 | 96 | 153 | 240 | 813 | 633 | 483 | 47 | 582 | 74 |
| | Before '34 | 55 | 94 | 54 | 3432 | 245 | 383 | 50 | 31 | 211 | 90 | 79 | 927 | 523 | 437 | 272 | 144 | 66 | 229 | 221 | 539 | 671 | 738 | 46 | 602 | 74 |
| | Unid.* | 11 | 42 | 105 | 25 | 18 | 68 | 25 | 856 | 65 | 161 | 64 | 249 | 17 | 18 | 21 | 19 | 108 | 3 | 109 | 22 | 1040 | 13 | 38 | 121 | 1 |
| | Total | 14715 | 8856 | 8938 | 200783 | 19058 | 34688 | 6274 | 10620 | 38091 | 22762 | 7978 | 127159 | 54901 | 31904 | 26106 | 22259 | 20054 | 11536 | 26826 | 81483 | 106127 | 38234 | 8818 | 42443 | 7497 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# AND MODEL YEAR—Continued

| Model Yr. | Neb. | Nev. | N.H. | N. J. | N.M. | N. Y. | N. C. | N. D. | Ohio | Okla. | Ore. | Pa. | R. I. | S. C. | S. D. | Tenn. | Tex. | Utah | Vt. | Va. | Wash. | W.Va. | Wis. | Wyo. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **KAISER** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 219 | 9 | 161 | 734 | 174 | 2112 | 405 | 97 | 2062 | 132 | 401 | 2897 | 120 | 57 | 285 | 256 | 741 | 173 | 99 | 415 | 1174 | 161 | 283 | 44 | 26240 |
| '49 | 532 | 43 | 197 | 1787 | 344 | 5466 | 1200 | 616 | 5139 | 492 | 966 | 6003 | 319 | 418 | 679 | 980 | 2762 | 435 | 212 | 1010 | 1010 | 564 | 2383 | 248 | 71756 |
| '48 | 1239 | 108 | 282 | 3104 | 483 | 6911 | 1528 | 456 | 5527 | 1187 | 1233 | 5234 | 313 | 494 | 730 | 1137 | 3726 | 418 | 186 | 1666 | 1158 | 909 | 2732 | 285 | 69119 |
| '47 | 662 | 112 | 297 | 2030 | 353 | 4912 | 1204 | 306 | 3722 | 780 | 834 | 3612 | 310 | 516 | 483 | 835 | 2794 | 273 | 158 | 1164 | 975 | 620 | 1304 | 186 | 60745 |
| '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '40 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Before '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unid.* | 22 | 1 | 3 | 46 | 24 | 108 | 107 | 4 | 67 | 69 | 6 | 131 | 4 | 28 | 14 | 79 | 99 | 55 | 7 | 71 | 16 | 37 | 24 | 4 | 2870 |
| Total | 2994 | 273 | 770 | 7701 | 1358 | 20611 | 4444 | 1485 | 16537 | 2680 | 3389 | 17877 | 1066 | 1511 | 2188 | 3187 | 10122 | 1354 | 646 | 4526 | 4333 | 2321 | 6706 | 779 | 250530 |
| **LA SALLE** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '45-'42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '40 | 42 | 54 | 61 | 1236 | 60 | 2719 | 234 | 60 | 1248 | 165 | 199 | 1482 | 135 | 79 | 39 | 189 | 644 | 81 | 56 | 219 | 263 | 177 | 389 | 32 | 10980 |
| '39 | 54 | 47 | 67 | 1077 | 60 | 2511 | 244 | 14 | 1020 | 188 | 235 | 1211 | 142 | 63 | 35 | 191 | 535 | 67 | 46 | 217 | 262 | 129 | 276 | 26 | 10135 |
| '38 | 38 | 27 | 46 | 618 | 17 | 1535 | 133 | 10 | 663 | 114 | 119 | 647 | 96 | 53 | 15 | 78 | 360 | 57 | 54 | 119 | 164 | 64 | 183 | 16 | 10741 |
| '37 | 63 | 44 | 66 | 1188 | 47 | 2632 | 197 | 26 | 1222 | 166 | 255 | 1453 | 145 | 78 | 38 | 150 | 412 | 53 | 79 | 214 | 352 | 139 | 412 | 29 | 10974 |
| '36 | 20 | 19 | 29 | 335 | 16 | 780 | 51 | 5 | 327 | 63 | 101 | 408 | 54 | 24 | 8 | 41 | 137 | 30 | 26 | 57 | 98 | 54 | 126 | 9 | 6465 |
| '35 | 11 | 7 | 15 | 154 | 8 | 382 | 28 | 7 | 157 | 34 | 40 | 227 | 19 | 6 | 8 | 17 | 56 | 18 | 15 | 31 | 68 | 31 | 66 | 3 | 3410 |
| '34 | 6 | 4 | 4 | 63 | 7 | 164 | 6 | 2 | 60 | 13 | 13 | 66 | 5 | 2 | 5 | 2 | 12 | 8 | 3 | 9 | 29 | 16 | 43 | 2 | 1249 |
| Before '34 | 8 | 9 | 16 | 204 | 9 | 394 | 12 | 5 | 121 | 22 | 31 | 184 | 34 | 7 | 3 | 13 | 24 | 11 | 21 | 12 | 41 | 3 | 38 | 3 | 2991 |
| Unid.* | 8 | | 2 | 20 | 9 | 74 | 1 | | 22 | 5 | | 11 | 9 | 41 | 2 | | 2 | | | 2 | | | 9 | 1 | 699 |
| Total | 248 | 211 | 305 | 4893 | 233 | 11391 | 906 | 85 | 4781 | 772 | 993 | 5679 | 637 | 341 | 149 | 690 | 2221 | 327 | 300 | 880 | 1277 | 613 | 1522 | 123 | 83344 |
| **LINCOLN** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 156 | 48 | 46 | 396 | 89 | 1121 | 237 | 29 | 598 | 204 | 160 | 884 | 58 | 135 | 52 | 126 | 723 | 84 | 15 | 284 | 275 | 82 | 60 | 38 | 12208 |
| '49 | 528 | 192 | 116 | 2455 | 379 | 5646 | 1267 | 212 | 3496 | 583 | 891 | 4407 | 353 | 548 | 332 | 791 | 4543 | 311 | 91 | 758 | 973 | 429 | 1119 | 220 | 61077 |
| '48 | 54 | 25 | 63 | 410 | 42 | 883 | 102 | 17 | 353 | 359 | 81 | 406 | 55 | 52 | 20 | 102 | 447 | 24 | 18 | 449 | 121 | 50 | 99 | 38 | 10783 |
| '47 | 88 | 54 | 70 | 901 | 65 | 2198 | 226 | 25 | 942 | 219 | 211 | 1106 | 134 | 152 | 43 | 189 | 952 | 75 | 31 | 292 | 253 | 98 | 253 | 38 | 18804 |
| '46 | 102 | 28 | 34 | 634 | 60 | 1516 | 181 | 26 | 751 | 205 | 147 | 817 | 82 | 102 | 25 | 175 | 723 | 80 | 20 | 174 | 210 | 68 | 193 | 21 | 13158 |
| '45-'42 | 30 | 22 | 14 | 217 | 38 | 381 | 84 | 11 | 256 | 77 | 90 | 290 | 33 | 42 | 12 | 103 | 405 | 32 | 5 | 43 | 76 | 38 | 88 | 17 | 5381 |
| '41 | 132 | 67 | 57 | 728 | 90 | 1662 | 295 | 39 | 902 | 304 | 345 | 1093 | 105 | 142 | 60 | 240 | 957 | 101 | 47 | 234 | 284 | 128 | 282 | 79 | 19172 |
| '40 | 155 | 71 | 57 | 640 | 95 | 1518 | 260 | 38 | 837 | 303 | 265 | 900 | 127 | 109 | 56 | 167 | 880 | 127 | 39 | 245 | 269 | 127 | 299 | 58 | 19851 |
| '39 | 116 | 49 | 47 | 475 | 57 | 1248 | 230 | 34 | 640 | 271 | 291 | 743 | 84 | 95 | 53 | 211 | 731 | 109 | 35 | 216 | 296 | 120 | 248 | 55 | 14962 |
| '38 | 102 | 37 | 33 | 358 | 45 | 928 | 153 | 32 | 447 | 184 | 205 | 508 | 68 | 74 | 30 | 93 | 407 | 53 | 27 | 153 | 249 | 94 | 181 | 34 | 10380 |
| '37 | 125 | 64 | 44 | 424 | 59 | 1380 | 158 | 46 | 547 | 232 | 315 | 740 | 72 | 83 | 58 | 124 | 470 | 93 | 24 | 143 | 321 | 114 | 268 | 51 | 13037 |
| '36 | 41 | 17 | 15 | 182 | 35 | 515 | 51 | 21 | 195 | 96 | 130 | 269 | 19 | 22 | 15 | 27 | 109 | 44 | 11 | 58 | 173 | 36 | 122 | 30 | 5882 |
| '35 | 2 | 2 | | 23 | | 59 | 6 | 2 | 14 | 6 | 6 | 17 | 5 | 2 | 1 | 4 | 16 | | | 7 | 1 | 2 | 1 | 1 | 462 |
| '34 | 1 | | 2 | 21 | 1 | 52 | 2 | 1 | 17 | 1 | 3 | 28 | 1 | | | 3 | 4 | 4 | | | 7 | 5 | 6 | | 372 |
| Before '34 | 9 | 1 | 3 | 76 | 2 | 178 | 8 | 5 | 67 | 10 | 22 | 83 | 10 | 8 | 3 | 5 | 19 | 2 | 4 | 8 | 29 | 6 | 14 | 5 | 1473 |
| Unid.* | 6 | | 1 | 24 | 1 | 24 | 2 | | 5 | 11 | | 18 | 1 | 2 | | 14 | 17 | | 1 | 5 | | | 5 | 4 | 824 |
| Total | 1647 | 677 | 604 | 7964 | 1058 | 19298 | 3262 | 537 | 10168 | 3065 | 3164 | 12289 | 1207 | 1566 | 760 | 2374 | 11485 | 1079 | 368 | 3049 | 3435 | 1384 | 3239 | 689 | 206283 |
| **MERCURY** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 1656 | 303 | 415 | 5709 | 1275 | 13433 | 3456 | 424 | 8130 | 2793 | 1719 | 10029 | 656 | 1647 | 998 | 2099 | 14064 | 727 | 172 | 2279 | 2845 | 934 | 1121 | 349 | 159204 |
| '49 | 2821 | 582 | 616 | 9056 | 1590 | 21282 | 6087 | 1411 | 16525 | 3537 | 3878 | 16873 | 1315 | 2640 | 1791 | 3596 | 20003 | 1461 | 459 | 3963 | 3806 | 1823 | 4963 | 807 | 263156 |
| '48 | 432 | 100 | 259 | 1457 | 258 | 3410 | 980 | 222 | 2791 | 1078 | 440 | 2632 | 287 | 453 | 268 | 760 | 3380 | 215 | 63 | 1237 | 536 | 334 | 1314 | 141 | 59072 |
| '47 | 805 | 188 | 227 | 2823 | 333 | 6159 | 1648 | 399 | 4930 | 1430 | 956 | 4560 | 387 | 853 | 430 | 1059 | 4669 | 434 | 115 | 1615 | 1190 | 628 | 1429 | 225 | 82068 |
| '46 | 842 | 116 | 169 | 2521 | 389 | 5420 | 1963 | 454 | 3982 | 1349 | 823 | 3696 | 379 | 999 | 582 | 1217 | 4917 | 460 | 96 | 1252 | 1341 | 652 | 1575 | 236 | 75015 |
| '45-'42 | 229 | 39 | 58 | 452 | 139 | 960 | 580 | 117 | 983 | 464 | 238 | 776 | 82 | 359 | 147 | 385 | 1857 | 154 | 33 | 237 | 342 | 166 | 482 | 70 | 19851 |
| '41 | 951 | 186 | 229 | 2163 | 534 | 4579 | 2342 | 450 | 4604 | 1797 | 1168 | 3586 | 349 | 1394 | 520 | 1424 | 6526 | 583 | 158 | 1300 | 1384 | 691 | 1791 | 382 | 83429 |
| '40 | 830 | 134 | 223 | 1887 | 380 | 4642 | 1838 | 359 | 3961 | 1405 | 949 | 2995 | 356 | 1161 | 490 | 1102 | 4526 | 511 | 154 | 1080 | 1156 | 464 | 1649 | 230 | 72398 |
| '39 | 624 | 78 | 179 | 1347 | 244 | 3643 | 1295 | 270 | 2631 | 1071 | 739 | 2315 | 244 | 829 | 329 | 707 | 2603 | 293 | 106 | 813 | 879 | 412 | 1231 | 172 | 61579 |
| '38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Before '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unid.* | 54 | 2 | 6 | 62 | 23 | 171 | 10 | 6 | 79 | 142 | 7 | 34 | 14 | 17 | 8 | 98 | 194 | 10 | 3 | 81 | 18 | | 31 | 11 | 3809 |
| Total | 9578 | 1650 | 2381 | 27477 | 5165 | 63089 | 20229 | 4112 | 48616 | 15966 | 10917 | 47586 | 4078 | 10352 | 5573 | 12425 | 62730 | 4048 | 1350 | 14507 | 13393 | 6004 | 18586 | 2523 | 688395 |
| **NASH** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 932 | 164 | 448 | 3344 | 549 | 10147 | 1569 | 332 | 6352 | 1181 | 1499 | 6939 | 627 | 962 | 721 | 1501 | 4714 | 770 | 256 | 1242 | 2971 | 767 | 2258 | 300 | 111834 |
| '49 | 689 | 182 | 512 | 3612 | 603 | 10908 | 1547 | 621 | 7377 | 1555 | 1744 | 9296 | 607 | 1032 | 639 | 1371 | 5337 | 720 | 414 | 1979 | 2302 | 933 | 5622 | 396 | 120867 |
| '48 | 664 | 114 | 365 | 3370 | 341 | 9533 | 1308 | 365 | 6465 | 1193 | 1198 | 7894 | 639 | 764 | 367 | 1279 | 3985 | 500 | 208 | 1634 | 1972 | 896 | 4066 | 254 | 99069 |
| '47 | 561 | 91 | 338 | 3117 | 308 | 8693 | 1231 | 293 | 5806 | 1100 | 1196 | 7009 | 617 | 658 | 357 | 1142 | 3585 | 506 | 169 | 1693 | 1572 | 803 | 3614 | 190 | 90098 |
| '46 | 558 | 72 | 270 | 2986 | 269 | 8162 | 1146 | 313 | 5677 | 956 | 804 | 6124 | 572 | 548 | 395 | 1123 | 3426 | 485 | 173 | 1445 | 1678 | 806 | 3019 | 164 | 82627 |
| '45-'42 | 222 | 50 | 93 | 719 | 94 | 1690 | 313 | 175 | 1774 | 315 | 604 | 1649 | 185 | 203 | 169 | 476 | 1171 | 215 | 41 | 215 | 736 | 230 | 1442 | 62 | 27060 |
| '41 | 469 | 87 | 200 | 2685 | 245 | 5555 | 649 | 325 | 5787 | 700 | 1763 | 5329 | 530 | 281 | 385 | 988 | 2002 | 392 | 116 | 877 | 2350 | 581 | 4681 | 187 | 74832 |
| '40 | 352 | 71 | 166 | 1985 | 146 | 3762 | 415 | 172 | 4039 | 585 | 1099 | 4184 | 329 | 237 | 281 | 552 | 1511 | 301 | 116 | 402 | 1289 | 465 | 3275 | 134 | 52941 |
| '39 | 267 | 44 | 165 | 1443 | 90 | 3154 | 296 | 142 | 2484 | 420 | 908 | 2829 | 334 | 150 | 161 | 380 | 977 | 197 | 98 | 251 | 758 | 286 | 2472 | 94 | 39818 |
| '38 | 210 | 42 | 103 | 1265 | 69 | 2549 | 211 | 115 | 1317 | 246 | 616 | 1752 | 166 | 83 | 116 | 278 | 854 | 166 | 66 | 209 | 699 | 173 | 2132 | 74 | 25538 |
| '37 | 347 | 97 | 247 | 2050 | 102 | 4288 | 241 | 142 | 3359 | 338 | 1223 | 4368 | 343 | 114 | 201 | 435 | 743 | 251 | 152 | 315 | 1175 | 398 | 5721 | 112 | 51677 |
| '36 | 251 | 53 | 149 | 775 | 58 | 2241 | 121 | 74 | 1215 | 209 | 761 | 1667 | 133 | 82 | 126 | 181 | 341 | 182 | 78 | 187 | 529 | 269 | 1823 | 73 | 23899 |
| '35 | 80 | 15 | 53 | 225 | 14 | 574 | 30 | 30 | 279 | 67 | 134 | 383 | 31 | 6 | 29 | 39 | 69 | 98 | 15 | 65 | 143 | 82 | 921 | 17 | 8457 |
| '34 | 36 | 14 | 49 | 258 | 6 | 694 | 23 | 14 | 244 | 26 | 99 | 404 | 41 | 13 | 18 | 22 | 30 | 41 | 13 | 42 | 80 | 55 | 368 | 7 | 5266 |
| Before '34 | 164 | 15 | 93 | 509 | 28 | 1574 | 47 | 82 | 493 | 87 | 168 | 951 | 55 | 34 | 95 | 61 | 149 | 52 | 79 | 89 | 253 | 90 | 827 | 21 | 13077 |
| Unid.* | 11 | | | 21 | 11 | 39 | 1 | 1 | 30 | 12 | 7 | 32 | 10 | 3 | 1 | 39 | 19 | 1 | 1 | 7 | | 4 | 44 | 1 | 1464 |
| Total | 6016 | 1110 | 3243 | 28334 | 2924 | 73572 | 9150 | 3196 | 52700 | 8990 | 13683 | 67698 | 5219 | 5160 | 4071 | 9868 | 28344 | 4801 | 1992 | 10292 | 18443 | 6807 | 42309 | 2958 | 525310 |
| **OLDSMOBILE** | | | | | | | | | | | | | | | | | | | | | | | | | |
| '50 | 1665 | 246 | 588 | 5199 | 658 | 18268 | 2838 | 478 | 9288 | 2045 | 2251 | 12383 | 903 | 1511 | 755 | 2451 | 9830 | 822 | 342 | 2954 | 3805 | 994 | 1421 | 298 | 163610 |
| '49 | 1943 | 394 | 833 | 9410 | 863 | 29500 | 4567 | 896 | 17171 | 3098 | 3230 | 19734 | 1888 | 2297 | 1098 | 3352 | 12570 | 1091 | 743 | 4701 | 4457 | 1217 | 6148 | 594 | 285152 |
| '48 | 1122 | 193 | 532 | 5849 | 516 | 18347 | 2283 | 534 | 10791 | 1811 | 1770 | 11606 | 1063 | 1121 | 644 | 1875 | 6946 | 626 | 341 | 2498 | 2721 | 1247 | 4183 | 347 | 161048 |
| '47 | 1278 | 173 | 596 | 7056 | 525 | 20517 | 2636 | 479 | 12202 | 1892 | 2017 | 12859 | 1002 | 1275 | 662 | 1972 | 7211 | 725 | 413 | 2696 | 2902 | 1452 | 4546 | 386 | 176565 |
| '46 | 639 | 110 | 396 | 4570 | 343 | 12450 | 1668 | 304 | 6980 | 1207 | 1298 | 8256 | 879 | 773 | 396 | 1187 | 4463 | 485 | 256 | 1617 | 1970 | 932 | 2891 | 211 | 108198 |
| '45-'42 | 368 | 82 | 220 | 2290 | 239 | 6100 | 985 | 178 | 4156 | 629 | 834 | 3690 | 489 | 459 | 205 | 722 | 3238 | 337 | 149 | 570 | 1244 | 826 | 1637 | 137 | 58858 |
| '41 | 1501 | 312 | 883 | 10598 | 865 | 24980 | 3791 | 532 | 16703 | 2878 | 3415 | 16401 | 2060 | 1838 | 791 | 3009 | 10346 | 1325 | 613 | 3533 | 5455 | 2173 | 6970 | 497 | 245883 |
| '40 | 1051 | 226 | 748 | 7940 | 626 | 19455 | 2541 | 371 | 11705 | 2627 | 2449 | 12291 | 1638 | 1351 | 638 | 2481 | 8949 | 1064 | 530 | 2468 | 3466 | 1673 | 6029 | 312 | 177913 |
| '39 | 786 | 125 | 631 | 5735 | 392 | 12567 | 1568 | 275 | 7090 | 1576 | 1509 | 8409 | 1067 | 995 | 466 | 1279 | 4019 | 640 | 379 | 1546 | 2336 | 1063 | 3866 | 293 | 116324 |
| '38 | 499 | 96 | 431 | 3846 | 269 | 9227 | 938 | 178 | 4200 | 1059 | 1035 | 4961 | 682 | 649 | 235 | 808 | 2855 | 414 | 248 | 807 | 1785 | 691 | 2140 | 151 | 76644 |
| '37 | 1002 | 169 | 662 | 6875 | 442 | 16028 | 1638 | 306 | 9631 | 1886 | 1949 | 10789 | 1486 | 817 | 446 | 1327 | 4275 | 757 | 378 | 1433 | 3522 | 1404 | 5014 | 302 | 147793 |
| '36 | 686 | 170 | 632 | 5673 | 267 | 13905 | 994 | 208 | 7834 | 1297 | 1644 | 7901 | 1077 | 390 | 376 | 982 | 2582 | 664 | 384 | 1027 | 2730 | 1233 | 4348 | 213 | 116348 |
| '35 | 490 | 89 | 256 | 2479 | 152 | 6923 | 463 | 164 | 3161 | 847 | 719 | 3381 | 422 | 217 | 226 | 381 | 1071 | 339 | 177 | 554 | 1206 | 532 | 2161 | 101 | 56406 |
| '34 | 134 | 38 | 95 | 885 | 44 | 2460 | 151 | 67 | 1183 | 238 | 245 | 1233 | 119 | 74 | 56 | 104 | 290 | 88 | 84 | 149 | 560 | 239 | 773 | 49 | 19414 |
| Before '34 | 227 | 32 | 116 | 922 | 40 | 2655 | 72 | 74 | 1078 | 140 | 249 | 1171 | 76 | 51 | 138 | 96 | 256 | 68 | 103 | 163 | 566 | 198 | 828 | 45 | 19575 |
| Unid.* | 21 | | 1 | 51 | 18 | 99 | 5 | 1 | 84 | 19 | 2 | 407 | 27 | 9 | 3 | 117 | 57 | | | 9 | 1 | 6 | 42 | 1 | 2990 |
| Total | 13573 | 2442 | 7588 | 79455 | 6479 | 210401 | 27168 | 5080 | 123306 | 22989 | 24809 | 135890 | 14848 | 12924 | 7135 | 21463 | 75758 | 9444 | 5120 | 26714 | 38668 | 15529 | 61170 | 3808 | 1913371 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# ● TOTAL REGISTRATIONS ●

# CARS IN USE BY MAKES, STATES

| Model | Yr. | Ala. | Ariz. | Ark. | Calif. | Colo. | Conn. | Del. | D. C. | Fla. | Ga. | Idaho | Ill. | Ind. | Iowa | Kan. | Ky. | La. | Me. | Md. | Mass. | Mich. | Minn. | Miss. | Mo. | Mont. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PACKARD | '50 | 458 | 191 | 245 | 2763 | 552 | 938 | 128 | 415 | 1079 | 758 | 261 | 3925 | 1710 | 1059 | 996 | 527 | 647 | 200 | 859 | 1068 | 2763 | 1787 | 207 | 935 | 206 |
| | '49 | 730 | 310 | 596 | 4855 | 832 | 1217 | 212 | 605 | 1954 | 1147 | 384 | 7451 | 2674 | 1711 | 1320 | 1076 | 1146 | 392 | 1430 | 2139 | 4837 | 2029 | 496 | 1908 | 480 |
| | '48 | 450 | 417 | 391 | 7567 | 613 | 1439 | 205 | 644 | 1722 | 921 | 277 | 6266 | 2101 | 1404 | 919 | 770 | 820 | 523 | 1385 | 2375 | 5142 | 1303 | 377 | 1435 | 344 |
| | '47 | 279 | 193 | 169 | 4677 | 321 | 773 | 96 | 353 | 908 | 518 | 150 | 2786 | 954 | 526 | 386 | 373 | 370 | 221 | 658 | 1345 | 2587 | 660 | 172 | 719 | 158 |
| | '46 | 234 | 177 | 146 | 3633 | 276 | 617 | 81 | 296 | 799 | 405 | 83 | 2157 | 707 | 389 | 301 | 343 | 333 | 157 | 549 | 1061 | 1421 | 526 | 160 | 613 | 107 |
| | '45-'42 | 285 | 201 | 110 | 2961 | 241 | 606 | 64 | 170 | 813 | 443 | 74 | 1861 | 521 | 275 | 219 | 279 | 338 | 125 | 436 | 1117 | 1183 | 418 | 121 | 546 | 67 |
| | '41 | 553 | 405 | 220 | 6603 | 615 | 1554 | 166 | 411 | 1699 | 769 | 187 | 3974 | 1233 | 995 | 487 | 605 | 664 | 309 | 1123 | 2866 | 2384 | 913 | 226 | 1338 | 166 |
| | '40 | 615 | 532 | 293 | 9313 | 720 | 2259 | 231 | 424 | 2162 | 995 | 260 | 5647 | 1656 | 693 | 634 | 760 | 867 | 425 | 1565 | 3369 | 3295 | 1244 | 285 | 1655 | 215 |
| | '39 | 261 | 221 | 130 | 6801 | 311 | 970 | 95 | 187 | 973 | 449 | 84 | 3430 | 610 | 320 | 254 | 331 | 290 | 218 | 641 | 1675 | 1059 | 591 | 115 | 775 | 70 |
| | '38 | 207 | 256 | 122 | 5789 | 329 | 1127 | 88 | 130 | 900 | 350 | 90 | 2195 | 583 | 407 | 303 | 319 | 230 | 190 | 594 | 1699 | 925 | 711 | 91 | 784 | 107 |
| | '37 | 449 | 449 | 209 | 8921 | 643 | 2373 | 198 | 265 | 1558 | 792 | 193 | 4047 | 1196 | 760 | 546 | 773 | 375 | 548 | 1339 | 3776 | 2752 | 1254 | 194 | 1526 | 242 |
| | '36 | 100 | 166 | 80 | 5835 | 257 | 942 | 68 | 111 | 635 | 211 | 73 | 1353 | 554 | 306 | 202 | 248 | 124 | 176 | 458 | 1430 | 683 | 548 | 62 | 572 | 71 |
| | '35 | 45 | 52 | 24 | 2515 | 104 | 278 | 26 | 32 | 155 | 85 | 17 | 422 | 167 | 127 | 95 | 115 | 37 | 73 | 174 | 475 | 205 | 223 | 29 | 187 | 50 |
| | '34 | 10 | 13 | 2 | 382 | 13 | 95 | 7 | 17 | 49 | 21 | 3 | 98 | 29 | 22 | 22 | 22 | 9 | 16 | 45 | 126 | 52 | 54 | 5 | 28 | 1 |
| | Before '34 | 35 | 65 | 20 | 2389 | 102 | 306 | 21 | 51 | 126 | 58 | 30 | 353 | 101 | 73 | 22 | 63 | 28 | 71 | 151 | 412 | 180 | 201 | 14 | 126 | 11 |
| | Unid.* | 2 | 12 | 30 | 5 | 9 | 46 | 7 | 278 | 45 | 123 | 1 | 83 | 5 | 10 | 5 | 1 | 45 | | 43 | 8 | 531 | 3 | 10 | 45 | |
| | Total | 4713 | 3660 | 2767 | 77009 | 5938 | 15542 | 1691 | 4389 | 15777 | 8045 | 2167 | 46042 | 14801 | 8879 | 6699 | 6605 | 6923 | 3644 | 11450 | 24733 | 29989 | 12465 | 2554 | 13192 | 2295 |
| PLYMOUTH | '50 | 1938 | 463 | 1253 | 7680 | 1375 | 2135 | 350 | 1370 | 2305 | 2515 | 576 | 10191 | 4410 | 4129 | 1835 | 1654 | 2403 | 829 | 2444 | 5388 | 10841 | 4038 | 1210 | 2808 | 355 |
| | '49 | 6459 | 2099 | 4327 | 33214 | 4900 | 8997 | 1245 | 4047 | 10879 | 8118 | 2256 | 39819 | 16271 | 12167 | 8019 | 7551 | 7761 | 2641 | 8701 | 15478 | 29953 | 12965 | 4441 | 12960 | 2313 |
| | '48 | 4265 | 1335 | 2565 | 24136 | 2903 | 5988 | 717 | 2870 | 6170 | 5880 | 1318 | 23641 | 9119 | 7129 | 4964 | 4680 | 5591 | 1747 | 5018 | 10038 | 16870 | 7584 | 3516 | 8474 | 1358 |
| | '47 | 3702 | 1434 | 2236 | 24542 | 2993 | 4089 | 717 | 2709 | 6202 | 4488 | 1327 | 22327 | 9447 | 7316 | 4889 | 4821 | 4809 | 1623 | 5019 | 9913 | 15911 | 7225 | 2784 | 7588 | 1392 |
| | '46 | 3207 | 968 | 1818 | 15810 | 2108 | 3049 | 490 | 1438 | 4699 | 3782 | 886 | 16092 | 6704 | 4622 | 3303 | 3583 | 3290 | 1150 | 3432 | 7142 | 10823 | 6405 | 2085 | 5806 | 879 |
| | '45-'42 | 1748 | 824 | 890 | 7327 | 1076 | 1753 | 245 | 676 | 2732 | 2345 | 538 | 7118 | 4040 | 2300 | 1708 | 1875 | 1979 | 685 | 1718 | 3874 | 5394 | 2926 | 1033 | 2649 | 439 |
| | '41 | 5813 | 2519 | 2802 | 40744 | 4144 | 8351 | 1113 | 2513 | 10848 | 7949 | 1728 | 29046 | 16725 | 8405 | 6350 | 6799 | 6489 | 2466 | 7788 | 17168 | 23402 | 9438 | 3082 | 11219 | 1580 |
| | '40 | 4062 | 2046 | 1887 | 40232 | 3120 | 6837 | 858 | 1627 | 7674 | 5469 | 1549 | 21602 | 12965 | 6573 | 4901 | 5073 | 4227 | 1906 | 6007 | 13681 | 15627 | 8285 | 2091 | 9593 | 1302 |
| | '39 | 3575 | 1625 | 1750 | 30722 | 3142 | 6747 | 782 | 1347 | 6856 | 4609 | 1296 | 20797 | 9628 | 6978 | 4561 | 4783 | 3807 | 1825 | 5478 | 13388 | 13254 | 8145 | 1869 | 9213 | 1100 |
| | '38 | 1871 | 975 | 1127 | 21834 | 1947 | 3886 | 557 | 652 | 3796 | 2282 | 813 | 11874 | 7344 | 4586 | 3355 | 3152 | 2318 | 1306 | 3694 | 7707 | 5748 | 5973 | 1055 | 5990 | 714 |
| | '37 | 3402 | 2137 | 2172 | 37464 | 4518 | 7853 | 914 | 937 | 6259 | 4329 | 1713 | 23044 | 13124 | 7530 | 6178 | 6198 | 3441 | 2205 | 6404 | 13113 | 16732 | 10175 | 1908 | 10590 | 1218 |
| | '36 | 2105 | 1566 | 1417 | 36935 | 3864 | 5887 | 696 | 615 | 4623 | 3224 | 1748 | 17641 | 10673 | 6689 | 5050 | 4482 | 2400 | 1600 | 4885 | 10400 | 9965 | 8619 | 1513 | 8160 | 1319 |
| | '35 | 1221 | 850 | 623 | 25509 | 1832 | 2653 | 292 | 233 | 2154 | 1648 | 850 | 7709 | 5764 | 4123 | 2952 | 2460 | 1081 | 866 | 2046 | 4150 | 4331 | 5047 | 694 | 4756 | 847 |
| | '34 | 745 | 601 | 532 | 14942 | 1084 | 1761 | 199 | 102 | 1466 | 1117 | 447 | 3997 | 3156 | 1887 | 1867 | 1658 | 798 | 590 | 1388 | 2566 | 2242 | 2149 | 489 | 3390 | 375 |
| | Before '34 | 722 | 537 | 599 | 20136 | 1484 | 2047 | 226 | 109 | 1833 | 1057 | 441 | 4710 | 3338 | 2156 | 1838 | 1906 | 703 | 855 | 1586 | 2462 | 2263 | 3488 | 383 | 4735 | 390 |
| | Unid.* | 38 | 139 | 319 | 27 | 43 | 192 | 28 | 1786 | 190 | 414 | 13 | 432 | 69 | 16 | 38 | 43 | 363 | 9 | 199 | 35 | 3757 | 32 | 114 | 270 | 4 |
| | Total | 44833 | 20139 | 26517 | 381114 | 40511 | 68225 | 9432 | 23011 | 78685 | 59206 | 17499 | 280150 | 132995 | 86606 | 61486 | 60498 | 51260 | 22283 | 66007 | 136503 | 186913 | 102596 | 29237 | 106201 | 15575 |
| PONTIAC | '50 | 2353 | 678 | 1283 | 15409 | 1836 | 3244 | 624 | 1711 | 3930 | 3640 | 870 | 14323 | 6819 | 4811 | 3350 | 1887 | 3242 | 979 | 2961 | 6667 | 18184 | 5117 | 1469 | 4820 | 604 |
| | '49 | 2871 | 1002 | 1845 | 24239 | 2216 | 4580 | 848 | 1609 | 4899 | 4638 | 1345 | 19884 | 8103 | 5473 | 4124 | 3415 | 4510 | 1567 | 4033 | 9225 | 19379 | 5641 | 2262 | 5555 | 1285 |
| | '48 | 1941 | 893 | 1418 | 17323 | 1766 | 3841 | 684 | 1297 | 3780 | 3108 | 893 | 16110 | 6573 | 4222 | 3199 | 2561 | 2798 | 1395 | 3255 | 7521 | 15462 | 4619 | 1703 | 4388 | 814 |
| | '47 | 1692 | 832 | 1136 | 16619 | 1722 | 3868 | 651 | 1320 | 3222 | 2506 | 751 | 15149 | 6140 | 3659 | 2994 | 2485 | 2448 | 1431 | 3093 | 7556 | 14223 | 4071 | 1260 | 3818 | 580 |
| | '46 | 1105 | 531 | 688 | 10945 | 1033 | 2521 | 383 | 767 | 2074 | 1576 | 434 | 8879 | 3694 | 1948 | 1666 | 1624 | 1373 | 874 | 1821 | 4399 | 8105 | 1916 | 755 | 2335 | 354 |
| | '45-'42 | 858 | 398 | 449 | 5830 | 758 | 1407 | 266 | 597 | 1485 | 1202 | 337 | 4435 | 2148 | 1114 | 1072 | 1017 | 1130 | 497 | 1271 | 2558 | 4564 | 1005 | 525 | 1602 | 271 |
| | '41 | 2914 | 1484 | 1604 | 30859 | 2756 | 6255 | 944 | 1516 | 5594 | 3599 | 999 | 18553 | 9067 | 4117 | 4013 | 3653 | 3822 | 2231 | 4490 | 11271 | 18652 | 5085 | 1820 | 5807 | 702 |
| | '40 | 1524 | 850 | 958 | 25614 | 1724 | 4571 | 651 | 1046 | 3205 | 2127 | 656 | 12949 | 5780 | 2989 | 2400 | 2389 | 1711 | 1478 | 3093 | 7320 | 10751 | 3495 | 890 | 4124 | 395 |
| | '39 | 1090 | 514 | 639 | 17336 | 1083* | 3141 | 410 | 512 | 1998 | 1321 | 300 | 7951 | 2990 | 2290 | 1631 | 1512 | 1187 | 1113 | 1953 | 5287 | 5832 | 2437 | 622 | 2830 | 245 |
| | '38 | 654 | 339 | 369 | 10296 | 680 | 1594 | 246 | 241 | 1827 | 677 | 243 | 5098 | 1987 | 1606 | 1284 | 950 | 695 | 792 | 1175 | 2807 | 3118 | 1695 | 371 | 1836 | 175 |
| | '37 | 1233 | 751 | 791 | 20553 | 1654 | 4021 | 554 | 409 | 2621 | 1406 | 599 | 11954 | 5930 | 3428 | 2812 | 2134 | 921 | 1366 | 2638 | 6754 | 9628 | 4248 | 548 | 4226 | 475 |
| | '36 | 608 | 515 | 498 | 15382 | 1069 | 2209 | 280 | 169 | 1459 | 727 | 410 | 5546 | 3341 | 2059 | 1745 | 1249 | 590 | 870 | 1333 | 4231 | 4252 | 2682 | 364 | 2773 | 256 |
| | '35 | 237 | 271 | 217 | 7973 | 674 | 972 | 116 | 65 | 732 | 309 | 203 | 2359 | 1648 | 1095 | 891 | 534 | 214 | 358 | 554 | 1858 | 1626 | 1602 | 156 | 1295 | 191 |
| | '34 | 77 | 77 | 49 | 1939 | 192 | 430 | 55 | 25 | 282 | 143 | 58 | 764 | 388 | 306 | 274 | 187 | 84 | 181 | 264 | 781 | 501 | 587 | 65 | 498 | 46 |
| | Before '34 | 151 | 146 | 112 | 5333 | 388 | 1007 | 109 | 72 | 545 | 213 | 78 | 1693 | 1020 | 977 | 850 | 393 | 159 | 532 | 523 | 1407 | 1289 | 1591 | 97 | 1314 | 167 |
| | Unid.* | 23 | 70 | 149 | 29 | 18 | 110 | 21 | 746 | 82 | 215 | 9 | 283 | 22 | 6 | 26 | 21 | 131 | 3 | 97 | 20 | 1459 | 14 | 53 | 125 | 2 |
| | Total | 19331 | 9351 | 12215 | 225327 | 19569 | 43771 | 6842 | 11802 | 37735 | 27407 | 8143 | 145953 | 65691 | 40100 | 32331 | 26001 | 24815 | 15667 | 32554 | 79454 | 136899 | 45952 | 13071 | 47067 | 6552 |
| STUDEBAKER | '50 | 2767 | 1276 | 1381 | 18231 | 1596 | 2911 | 649 | 1129 | 3859 | 3371 | 1411 | 14106 | 12380 | 4237 | 2920 | 2064 | 4161 | 827 | 2849 | 6427 | 9814 | 5817 | 1544 | 3753 | 1029 |
| | '49 | 1329 | 611 | 814 | 17194 | 901 | 1848 | 391 | 705 | 2422 | 1805 | 1016 | 7557 | 5137 | 2107 | 1526 | 1438 | 2083 | 523 | 1708 | 3075 | 4523 | 2735 | 862 | 2200 | 730 |
| | '48 | 1563 | 1211 | 813 | 19862 | 1223 | 2419 | 530 | 933 | 2980 | 2307 | 1034 | 10678 | 6823 | 3054 | 2219 | 1726 | 2189 | 684 | 2170 | 4290 | 6207 | 2316 | 980 | 2952 | 912 |
| | '47 | 1235 | 635 | 511 | 12309 | 1304 | 2031 | 422 | 712 | 2714 | 1776 | 809 | 9647 | 7234 | 2921 | 2045 | 1317 | 1757 | 556 | 1849 | 3231 | 5370 | 3265 | 676 | 2866 | 700 |
| | '46 | 295 | 94 | 85 | 7446 | 156 | 297 | 57 | 86 | 378 | 251 | 97 | 1168 | 654 | 361 | 221 | 189 | 272 | 88 | 250 | 525 | 677 | 403 | 109 | 352 | 93 |
| | '45-'42 | 503 | 238 | 216 | 4173 | 463 | 575 | 118 | 176 | 873 | 692 | 316 | 2859 | 1862 | 908 | 564 | 425 | 797 | 178 | 518 | 1029 | 1522 | 1173 | 237 | 845 | 262 |
| | '41 | 1258 | 685 | 489 | 15257 | 1195 | 1740 | 379 | 596 | 2372 | 1494 | 845 | 7467 | 5413 | 2453 | 1396 | 1119 | 1601 | 477 | 1663 | 3151 | 3872 | 3066 | 488 | 2557 | 606 |
| | '40 | 1125 | 508 | 420 | 13568 | 967 | 1325 | 272 | 369 | 1792 | 1062 | 604 | 5563 | 3993 | 1825 | 1008 | 825 | 1065 | 337 | 1192 | 2161 | 2576 | 2375 | 402 | 2249 | 494 |
| | '39 | 425 | 363 | 250 | 11805 | 627 | 974 | 249 | 262 | 1188 | 610 | 381 | 3942 | 2717 | 1229 | 701 | 571 | 517 | 285 | 1082 | 1969 | 1688 | 1674 | 192 | 1505 | 349 |
| | '38 | 336 | 194 | 166 | 7136 | 390 | 1107 | 148 | 173 | 1256 | 473 | 256 | 3405 | 2487 | 1156 | 857 | 394 | 479 | 274 | 472 | 933 | 1268 | 1010 | 133 | 1093 | 155 |
| | '37 | 238 | 302 | 165 | 7929 | 678 | 1129 | 218 | 162 | 784 | 427 | 381 | 3405 | 2487 | 1156 | 723 | 493 | 346 | 343 | 957 | 1867 | 1278 | 1617 | 114 | 1093 | 343 |
| | '36 | 90 | 176 | 64 | 7519 | 352 | 463 | 72 | 53 | 321 | 186 | 187 | 1375 | 1309 | 594 | 374 | 211 | 178 | 142 | 313 | 767 | 449 | 814 | 42 | 544 | 139 |
| | '35 | 40 | 76 | 30 | 3315 | 177 | 210 | 32 | 21 | 150 | 110 | 106 | 613 | 492 | 324 | 219 | 110 | 102 | 93 | 145 | 382 | 193 | 482 | 24 | 311 | 83 |
| | '34 | 27 | 66 | 24 | 2296 | 103 | 225 | 21 | 15 | 94 | 44 | 39 | 273 | 178 | 167 | 139 | 65 | 46 | 57 | 95 | 227 | 158 | 312 | 13 | 177 | 46 |
| | Before '34 | 44 | 127 | 45 | 6560 | 236 | 335 | 50 | 36 | 170 | 106 | 66 | 629 | 408 | 353 | 262 | 127 | 93 | 163 | 218 | 377 | 343 | 672 | 41 | 325 | 64 |
| | Unid.* | 9 | 34 | 71 | 22 | 12 | 60 | 11 | 420 | 43 | 111 | 7 | 110 | 18 | 3 | 11 | 7 | 68 | 4 | 46 | 6 | 399 | 11 | 32 | 44 | 1 |
| | Total | 11071 | 6972 | 5472 | 150522 | 10326 | 17102 | 3575 | 5823 | 20419 | 14608 | 7480 | 71220 | 54292 | 22349 | 14724 | 10966 | 13534 | 4929 | 15674 | 30329 | 39634 | 29152 | 5823 | 22131 | 5916 |
| WILLYS | '50 | 111 | 74 | 175 | 757 | 148 | 462 | 27 | 64 | 761 | 214 | 189 | 938 | 507 | 240 | 128 | 288 | 119 | 86 | 273 | 571 | 541 | 47 | 126 | 933 | 15 |
| | '49 | 252 | 127 | 556 | 897 | 89 | 476 | 46 | 113 | 1360 | 473 | 337 | 2015 | 819 | 518 | 351 | 1108 | 299 | 57 | 47 | 734 | 1009 | 158 | 369 | 973 | 77 |
| | '48 | 555 | 145 | 863 | 1037 | 129 | 700 | 54 | 102 | 1629 | 386 | 486 | 3096 | 962 | 1067 | 594 | 2548 | 352 | 31 | 550 | 810 | 1711 | 203 | 572 | 1596 | 90 |
| | '47 | 566 | 137 | 567 | 934 | 71 | 439 | 40 | 123 | 1499 | 340 | 326 | 2448 | 757 | 1044 | 445 | 1682 | 295 | 20 | 410 | 718 | 1637 | 102 | 529 | 1488 | 29 |
| | '46 | 356 | 45 | 349 | 697 | 57 | 514 | 43 | 59 | 925 | 85 | 134 | 1898 | 492 | 537 | 328 | 853 | 136 | 7 | 434 | 683 | 1514 | 45 | 324 | 935 | 4 |
| | '45-'42 | 611 | 107 | 172 | 1456 | 94 | 185 | 19 | 48 | 737 | 211 | 160 | 606 | 288 | 199 | 199 | 487 | 230 | 30 | 202 | 420 | 545 | 84 | 300 | 416 | 47 |
| | '41 | 498 | 114 | 202 | 2236 | 167 | 299 | 34 | 51 | 566 | 334 | 217 | 775 | 528 | 275 | 224 | 210 | 187 | 126 | 350 | 477 | 725 | 185 | 416 | 347 | 61 |
| | '40 | 393 | 119 | 130 | 3133 | 195 | 259 | 32 | 25 | 719 | 281 | 113 | 860 | 584 | 294 | 224 | 235 | 259 | 150 | 324 | 495 | 626 | 236 | 116 | 323 | 59 |
| | '39 | 110 | 37 | 26 | 1966 | 77 | 118 | 10 | 17 | 288 | 78 | 30 | 277 | 227 | 87 | 68 | 88 | 80 | 80 | 103 | 188 | 172 | 185 | 36 | 175 | 16 |
| | '38 | 106 | 63 | 48 | 1557 | 67 | 121 | 10 | 10 | 318 | 123 | 41 | 381 | 260 | 143 | 158 | 112 | 152 | 43 | 117 | 214 | 200 | 236 | 36 | 219 | 28 |
| | '37 | 175 | 207 | 118 | 6351 | 258 | 363 | 27 | 17 | 516 | 180 | 99 | 662 | 799 | 355 | 296 | 226 | 141 | 96 | 269 | 476 | 611 | 515 | 58 | 580 | 79 |
| | '36 | 52 | 55 | 23 | 2165 | 42 | 28 | 1 | 1 | 144 | 48 | 18 | 42 | 64 | 24 | 20 | 23 | 36 | 5 | 12 | 21 | 61 | 32 | 16 | 30 | 11 |
| | '35 | 16 | 36 | 12 | 1648 | 9 | 9 | | | 55 | 23 | 7 | 30 | 48 | 6 | 10 | 13 | 20 | 6 | 4 | 9 | 16 | 11 | 6 | 12 | 12 |
| | '34 | 18 | 9 | 3 | 714 | 2 | 13 | | | 59 | 30 | 2 | 17 | 12 | 5 | 7 | 4 | 13 | 2 | 3 | 5 | 5 | 2 | 1 | 1 | 1 |
| | Before '34 | 41 | 43 | 30 | 2277 | 154 | 87 | 14 | 5 | 173 | 63 | 36 | 416 | 286 | 404 | 297 | 99 | 56 | 95 | 139 | 126 | 213 | 637 | 17 | 371 | 35 |
| | Unid.* | 13 | 7 | 38 | 7 | | 16 | 1 | 90 | 54 | 15 | 2 | 35 | 6 | 11 | 10 | 6 | 23 | 3 | 20 | 11 | 139 | 2 | 19 | 36 | |
| | Total | 3873 | 1319 | 3242 | 29819 | 1577 | 3968 | 358 | 723 | 9790 | 2982 | 2087 | 14699 | 6620 | 5209 | 3296 | 7864 | 2398 | 839 | 3680 | 5955 | 9725 | 2880 | 2635 | 9408 | 534 |
| MISC. | '50 | 28 | 24 | 98 | 1353 | 30 | 270 | 37 | 113 | 245 | 338 | 73 | 247 | 68 | 30 | 30 | 20 | 61 | 22 | 132 | 400 | 389 | 92 | 22 | 107 | 7 |
| | '49 | 39 | 37 | 195 | 1408 | 83 | 317 | 79 | 116 | 457 | 471 | 82 | 1476 | 172 | 82 | 143 | 82 | 179 | 107 | 277 | 687 | 955 | 75 | 109 | 200 | 19 |
| | '48 | 52 | 46 | 135 | 2049 | 121 | 761 | 184 | 258 | 440 | 266 | 122 | 2435 | 356 | 68 | 68 | 110 | 161 | 123 | 643 | 908 | 1086 | 443 | 126 | 249 | 25 |
| | '47 | 34 | 18 | 98 | 408 | 50 | 101 | 22 | 107 | 123 | 200 | 16 | 179 | 80 | 30 | 23 | 48 | 46 | 33 | 85 | 204 | 381 | 21 | 32 | 90 | 6 |
| | '46 | 28 | 6 | 62 | 230 | 38 | 66 | 14 | 23 | 128 | 188 | 17 | 126 | 57 | 42 | 13 | 36 | 45 | 16 | 48 | 154 | 223 | 26 | 31 | 66 | 2 |
| | '45-'42 | 24 | 10 | 44 | 132 | 53 | 34 | 12 | 2 | 71 | 107 | 6 | 60 | 38 | 10 | 15 | 14 | 20 | 20 | 43 | 109 | 152 | 22 | 20 | 43 | |
| | '41 | 31 | 19 | 125 | 182 | 77 | 122 | 14 | 6 | 137 | 391 | 27 | 192 | 88 | 55 | 58 | 82 | 74 | 24 | 52 | 152 | 510 | 83 | 60 | 116 | 5 |
| | '40 | 34 | 13 | 94 | 224 | 37 | 106 | 10 | 11 | 119 | 258 | 22 | 114 | 84 | 43 | 25 | 50 | 50 | 22 | 39 | 173 | 376 | 35 | 47 | 105 | 3 |
| | '39 | 21 | 20 | 66 | 373 | 44 | 74 | 10 | 4 | 147 | 171 | 18 | 183 | 133 | 66 | 29 | 56 | 29 | 19 | 46 | 132 | 270 | 39 | 28 | 68 | 4 |
| | '38 | 10 | 22 | 48 | 294 | 22 | 71 | 9 | 7 | 74 | 84 | 17 | 103 | 53 | 40 | 17 | 33 | 12 | 12 | 33 | 98 | 176 | 36 | 15 | 61 | 2 |
| | '37 | 16 | 34 | 63 | 460 | 42 | 102 | 15 | 14 | 94 | 151 | 35 | 214 | 82 | 70 | 38 | 43 | 30 | 15 | 51 | 174 | 411 | 35 | 23 | 117 | 7 |
| | '36 | 7 | 36 | 59 | 610 | 50 | 92 | 18 | 5 | 88 | 129 | 21 | 245 | 107 | 89 | 52 | 54 | 28 | 28 | 69 | 190 | 378 | 86 | 24 | 127 | 15 |
| | '35 | 18 | 25 | 38 | 539 | 45 | 83 | 16 | 4 | 99 | 66 | 12 | 172 | 90 | 53 | 35 | 33 | 21 | 12 | 56 | 129 | 160 | 74 | 14 | 87 | 5 |
| | '34 | 15 | 13 | 24 | 470 | 35 | 71 | 12 | 6 | 57 | 55 | 11 | 86 | 43 | 28 | 30 | 15 | 11 | 24 | 45 | 100 | 100 | 41 | 19 | 66 | 7 |
| | Before '34 | 61 | 161 | 108 | 6738 | 404 | 648 | 137 | 42 | 420 | 286 | 144 | 1055 | 518 | 676 | 380 | 218 | 117 | 244 | 494 | 748 | 896 | 920 | 90 | 764 | 147 |
| | Unid.* | 96 | 49 | 95 | 796 | 76 | 120 | 40 | 293 | 153 | 188 | 16 | 344 | 87 | 119 | 29 | 72 | 86 | 18 | 143 | 387 | 1042 | 8 | 318 | 2243 | 24 |
| | Total | 513 | 524 | 1383 | 16229 | 1209 | 3039 | 631 | 1011 | 2812 | 3329 | 639 | 7249 | 2066 | 1507 | 963 | 976 | 950 | 749 | 2243 | 4708 | 7453 | 2015 | 1000 | 4569 | 278 |
| Total All Makes | | 435491 | 186539 | 260734 | 3583316 | 279684 | 537852 | 87734 | 189096 | 702129 | 509917 | 186150 | 2183578 | 1063389 | 803492 | 594236 | 495571 | 483110 | 193585 | 486688 | 1042582 | 1868674 | 873718 | 276249 | 919872 | 149188 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

For Summary of Cars in Use by Makes, by Model Year, see page 114

# AND MODEL YEAR—Continued

| Model | Yr | Neb. | Nev. | N.H. | N. J. | N.M. | N. Y. | N. C. | N. D. | Ohio | Okla. | Ore. | Pa. | R. I. | S. C. | S. D. | Tenn. | Tex. | Utah | Vt. | Va. | Wash. | W.Va. | Wis. | Wyo. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PACKARD | '50 | 485 | 113 | 111 | 1829 | 285 | 6011 | 998 | 243 | 3362 | 282 | 789 | 4679 | 268 | 373 | 440 | 629 | 2111 | 293 | 109 | 691 | 918 | 502 | 532 | 127 | 50949 |
| | '49 | 711 | 125 | 289 | 3253 | 346 | 9421 | 1645 | 377 | 5371 | 946 | 1170 | 7770 | 232 | 684 | 561 | 961 | 3223 | 337 | 275 | 1637 | 1373 | 655 | 1936 | 286 | 85737 |
| | '48 | 501 | 166 | 271 | 3428 | 244 | 10351 | 1081 | 168 | 4435 | 837 | 1136 | 7317 | 335 | 483 | 280 | 799 | 3173 | 287 | 209 | 1304 | 1395 | 719 | 1583 | 182 | 80494 |
| | '47 | 274 | 77 | 174 | 1716 | 117 | 4742 | 543 | 96 | 2319 | 438 | 451 | 3216 | 248 | 239 | 101 | 542 | 1380 | 167 | 121 | 672 | 650 | 390 | 628 | 73 | 39724 |
| | '46 | 182 | 64 | 134 | 1467 | 106 | 3688 | 472 | 59 | 1931 | 349 | 378 | 2650 | 182 | 234 | 82 | 369 | 1167 | 136 | 116 | 547 | 552 | 277 | 512 | 65 | 31320 |
| | '45-'42 | 131 | 56 | 96 | 1172 | 99 | 2613 | 340 | 26 | 1713 | 224 | 345 | 2120 | 162 | 177 | 34 | 413 | 1092 | 126 | 84 | 247 | 514 | 222 | 469 | 49 | 26008 |
| | '41 | 277 | 140 | 279 | 2998 | 223 | 6282 | 796 | 56 | 3537 | 550 | 650 | 5630 | 447 | 461 | 78 | 796 | 2152 | 277 | 181 | 1104 | 1445 | 573 | 1094 | 92 | 52227 |
| | '40 | 369 | 146 | 315 | 4234 | 208 | 8838 | 976 | 94 | 4668 | 654 | 964 | 7491 | 490 | 538 | 109 | 1015 | 2650 | 371 | 308 | 1173 | 1599 | 899 | 1306 | 140 | 70576 |
| | '39 | 174 | 63 | 147 | 1991 | 86 | 4007 | 473 | 30 | 1826 | 380 | 413 | 2847 | 313 | 287 | 69 | 480 | 1077 | 143 | 116 | 709 | 648 | 377 | 647 | 61 | 38206 |
| | '38 | 204 | 77 | 132 | 1918 | 115 | 4396 | 427 | 46 | 1794 | 319 | 439 | 2702 | 296 | 223 | 79 | 334 | 914 | 185 | 111 | 512 | 663 | 401 | 695 | 53 | 35563 |
| | '37 | 336 | 109 | 316 | 3968 | 199 | 9600 | 806 | 68 | 4334 | 536 | 844 | 6402 | 638 | 477 | 148 | 676 | 1515 | 326 | 225 | 840 | 1447 | 771 | 1419 | 112 | 70510 |
| | '36 | 163 | 62 | 92 | 1332 | 70 | 3464 | 250 | 27 | 1471 | 218 | 396 | 2305 | 193 | 131 | 56 | 193 | 434 | 147 | 103 | 411 | 559 | 275 | 750 | 40 | 28394 |
| | '35 | 57 | 13 | 61 | 509 | 25 | 1256 | 83 | 17 | 456 | 112 | 142 | 892 | 60 | 35 | 26 | 49 | 134 | 61 | 47 | 148 | 211 | 86 | 243 | 14 | 10433 |
| | '34 | 2 | 4 | 8 | 191 | 3 | 317 | 12 | 5 | 87 | 18 | 34 | 186 | 5 | 16 | 1 | 25 | 41 | 6 | 12 | 22 | 32 | 14 | 31 | 8 | 1621 |
| | Before '34 | 41 | 24 | 29 | 587 | 21 | 1004 | 42 | 11 | 402 | 40 | 119 | 822 | 59 | 37 | 29 | 40 | 124 | 38 | 33 | 81 | 214 | 46 | 141 | 8 | 6781 |
| | Unid.* | 10 | | 1 | 35 | 3 | 38 | | | 20 | 4 | 5 | 77 | 3 | 14 | | 35 | 18 | | | 1 | | 1 | 9 | | 1622 |
| | Total | 3937 | 1239 | 2452 | 30645 | 2130 | 75209 | 8942 | 1322 | 37720 | 6004 | 8423 | 56805 | 3968 | 4398 | 2112 | 7331 | 21209 | 2902 | 2087 | 10299 | 12220 | 6118 | 12067 | 1308 | 651716 |
| PLYMOUTH | '50 | 1733 | 152 | 635 | 5050 | 1074 | 12502 | 2369 | 673 | 10567 | 1924 | 1302 | 12268 | 771 | 1134 | 1045 | 2898 | 6792 | 684 | 390 | 2837 | 4036 | 985 | 1476 | 289 | 148061 |
| | '49 | 5910 | 710 | 1557 | 17807 | 2035 | 46272 | 9631 | 2931 | 34365 | 6814 | 6347 | 44164 | 2935 | 4623 | 2875 | 8416 | 29177 | 2204 | 1116 | 11169 | 8697 | 3919 | 11048 | 1457 | 531978 |
| | '48 | 3687 | 491 | 1142 | 10428 | 1125 | 26603 | 5871 | 2104 | 20120 | 4912 | 3593 | 24861 | 1750 | 2853 | 2127 | 5391 | 16328 | 1348 | 734 | 7358 | 5142 | 3626 | 7232 | 901 | 327518 |
| | '47 | 4064 | 456 | 1002 | 10652 | 1237 | 26935 | 6397 | 1897 | 20534 | 4184 | 3537 | 24479 | 1813 | 2769 | 2258 | 4977 | 17738 | 1375 | 703 | 6952 | 4778 | 3798 | 7200 | 848 | 320074 |
| | '46 | 2538 | 301 | 769 | 7559 | 920 | 19307 | 4766 | 1270 | 14321 | 3337 | 2344 | 16640 | 1284 | 2063 | 1341 | 3895 | 12815 | 949 | 502 | 4885 | 3100 | 2815 | 4944 | 588 | 226622 |
| | '45-'42 | 1187 | 192 | 291 | 3989 | 537 | 9610 | 3005 | 653 | 6840 | 1302 | 1619 | 8012 | 741 | 1447 | 592 | 2294 | 6909 | 774 | 237 | 1637 | 2368 | 1407 | 2522 | 273 | 118310 |
| | '41 | 3948 | 640 | 1499 | 17955 | 1690 | 42111 | 10673 | 1952 | 35564 | 4875 | 6345 | 36798 | 3476 | 5100 | 1671 | 8053 | 22322 | 2238 | 1030 | 9852 | 9334 | 5627 | 9923 | 967 | 482653 |
| | '40 | 2895 | 476 | 1318 | 14072 | 1193 | 34044 | 6781 | 1357 | 28308 | 4025 | 5017 | 29074 | 2738 | 3424 | 1556 | 5220 | 14719 | 1816 | 846 | 7729 | 6795 | 4123 | 8579 | 703 | 375803 |
| | '39 | 2665 | 391 | 1268 | 13533 | 993 | 33820 | 6664 | 1021 | 23966 | 3517 | 4082 | 25615 | 2985 | 3230 | 1430 | 4775 | 13431 | 1607 | 809 | 5641 | 5758 | 3670 | 8149 | 677 | 337532 |
| | '38 | 2605 | 222 | 786 | 8975 | 867 | 22433 | 3595 | 740 | 11987 | 2627 | 2468 | 15704 | 1443 | 1570 | 1030 | 2908 | 8616 | 951 | 610 | 4090 | 3759 | 2420 | 5816 | 383 | 210931 |
| | '37 | 3514 | 486 | 1332 | 14820 | 1158 | 34399 | 5959 | 1129 | 28235 | 4482 | 5950 | 32065 | 3193 | 2963 | 1515 | 5617 | 13236 | 1945 | 964 | 5194 | 6563 | 5186 | 10967 | 764 | 387234 |
| | '36 | 3467 | 414 | 1116 | 10965 | 890 | 27360 | 4114 | 792 | 19053 | 3604 | 4874 | 25470 | 2498 | 1985 | 1248 | 3663 | 9086 | 1695 | 862 | 4456 | 6895 | 4571 | 8962 | 738 | 305054 |
| | '35 | 2001 | 225 | 573 | 4676 | 489 | 11621 | 2378 | 717 | 9749 | 2208 | 2911 | 10999 | 1126 | 1068 | 795 | 2137 | 4839 | 884 | 473 | 2583 | 3801 | 2389 | 5512 | 372 | 159067 |
| | Before '34 | 953 | 138 | 386 | 3100 | 270 | 7656 | 1724 | 257 | 6942 | 1300 | 1756 | 7437 | 716 | 704 | 301 | 1404 | 2761 | 488 | 314 | 1445 | 2212 | 1765 | 2840 | 207 | 96204 |
| | Unid.* | 1293 | 137 | 415 | 3564 | 253 | 10221 | 1331 | 405 | 6943 | 1110 | 2159 | 8373 | 694 | 713 | 416 | 1300 | 2830 | 402 | 397 | 1334 | 3085 | 1629 | 3334 | 219 | 112547 |
| | Unid.* | 98 | 3 | 4 | 118 | 39 | 151 | 11 | 6 | 158 | 47 | 6 | 207 | 18 | 13 | 13 | 260 | 117 | 7 | 1 | 33 | 5 | 5 | 85 | 5 | 9948 |
| | Total | 42338 | 5434 | 14123 | 147580 | 14579 | 365045 | 75469 | 17904 | 279879 | 50568 | 54318 | 321885 | 29179 | 35679 | 20416 | 63208 | 163614 | 19387 | 9982 | 77393 | 76338 | 47915 | 96387 | 9411 | 4149576 |
| PONTIAC | '50 | 2723 | 310 | 872 | 8176 | 1197 | 20404 | 4306 | 741 | 12799 | 2696 | 2659 | 14872 | 976 | 1981 | 1081 | 3491 | 11226 | 1041 | 511 | 3527 | 4291 | 1437 | 2017 | 412 | 214237 |
| | '49 | 2814 | 446 | 1113 | 13445 | 1066 | 31598 | 5425 | 1221 | 18348 | 3999 | 3204 | 18960 | 1381 | 2297 | 1293 | 3906 | 13563 | 1469 | 763 | 5104 | 3837 | 1359 | 5898 | 712 | 287589 |
| | '48 | 2197 | 329 | 788 | 10633 | 783 | 23699 | 4270 | 1020 | 15141 | 2879 | 2631 | 15482 | 1241 | 2066 | 1107 | 3216 | 10396 | 1113 | 585 | 3778 | 3343 | 1712 | 4839 | 480 | 225182 |
| | '47 | 1949 | 291 | 772 | 10136 | 672 | 22245 | 4494 | 928 | 14905 | 2724 | 2739 | 14311 | 1351 | 2009 | 968 | 2770 | 9785 | 965 | 631 | 3700 | 3412 | 1720 | 4451 | 404 | 211448 |
| | '46 | 1400 | 283 | 498 | 6200 | 396 | 13304 | 2817 | 472 | 8940 | 1669 | 1683 | 8059 | 829 | 1333 | 675 | 1723 | 5516 | 570 | 401 | 2307 | 2188 | 1156 | 2868 | 258 | 126576 |
| | '45-'42 | 1237 | 237 | 327 | 3200 | 301 | 8008 | 2078 | 252 | 4944 | 932 | 1184 | 4323 | 534 | 1014 | 341 | 1094 | 3920 | 447 | 227 | 854 | 1561 | 759 | 1556 | 172 | 73111 |
| | '41 | 2107 | 418 | 1063 | 14967 | 934 | 28136 | 6809 | 733 | 22097 | 3965 | 4562 | 19658 | 2354 | 3448 | 838 | 4157 | 12585 | 1706 | 790 | 4863 | 5642 | 2564 | 7020 | 484 | 303576 |
| | '40 | 1400 | 283 | 773 | 11090 | 562 | 20499 | 3898 | 398 | 14128 | 2674 | 3069 | 14010 | 1347 | 1594 | 486 | 2228 | 6509 | 1061 | 603 | 3480 | 3553 | 1741 | 4914 | 328 | 203298 |
| | '39 | 911 | 136 | 606 | 7481 | 334 | 14183 | 2272 | 253 | 8343 | 1697 | 1571 | 8444 | 1045 | 1000 | 325 | 1489 | 3796 | 508 | 362 | 2193 | 2020 | 1008 | 3050 | 171 | 129622 |
| | '38 | 596 | 82 | 331 | 4823 | 158 | 9463 | 1328 | 196 | 4937 | 1209 | 1080 | 4980 | 524 | 513 | 253 | 859 | 2600 | 381 | 237 | 1098 | 1350 | 603 | 2205 | 113 | 80676 |
| | '37 | 1365 | 211 | 733 | 8900 | 370 | 18014 | 2167 | 369 | 13788 | 2470 | 2640 | 13212 | 1297 | 918 | 517 | 1585 | 4154 | 848 | 520 | 2041 | 3469 | 1575 | 5728 | 306 | 178850 |
| | '36 | 966 | 140 | 437 | 4697 | 218 | 10297 | 961 | 214 | 7006 | 1613 | 1692 | 8458 | 773 | 484 | 333 | 958 | 2364 | 459 | 316 | 1173 | 1906 | 1087 | 3712 | 206 | 103086 |
| | '35 | 521 | 72 | 204 | 2097 | 132 | 4788 | 582 | 176 | 2767 | 629 | 701 | 2677 | 327 | 297 | 210 | 396 | 1224 | 234 | 147 | 682 | 969 | 438 | 2054 | 141 | 48377 |
| | '34 | 151 | 21 | 85 | 928 | 26 | 2256 | 213 | 45 | 751 | 212 | 185 | 1246 | 160 | 92 | 55 | 135 | 357 | 52 | 79 | 190 | 255 | 173 | 624 | 26 | 16410 |
| | Before '34 | 486 | 29 | 276 | 1877 | 60 | 5188 | 345 | 177 | 2153 | 367 | 412 | 2521 | 315 | 195 | 164 | 215 | 715 | 97 | 200 | 442 | 820 | 354 | 1835 | 49 | 39245 |
| | Unid.* | 40 | 2 | | 81 | 20 | 77 | 5 | 3 | 64 | 28 | 8 | 119 | 31 | 16 | 5 | 134 | 72 | 3 | 2 | 11 | 4 | 6 | 43 | | 4508 |
| | Total | 19609 | 3041 | 8778 | 108632 | 7229 | 236210 | 41928 | 7102 | 151106 | 30163 | 29930 | 148332 | 14485 | 19215 | 9449 | 28356 | 86780 | 10954 | 6374 | 35443 | 38322 | 17090 | 52534 | 4267 | 2245791 |
| STUDEBAKER | '50 | 2308 | 390 | 528 | 6769 | 1443 | 16565 | 3744 | 864 | 11159 | 1942 | 2580 | 14301 | 1059 | 1631 | 994 | 3494 | 13027 | 1293 | 373 | 2502 | 4880 | 1226 | 2610 | 399 | 206370 |
| | '49 | 1037 | 252 | 514 | 3975 | 568 | 10059 | 2071 | 571 | 6003 | 1925 | 1827 | 8835 | 600 | 880 | 544 | 1742 | 5950 | 638 | 335 | 3566 | 2626 | 850 | 2682 | 367 | 124047 |
| | '48 | 1502 | 358 | *25 | 5305 | 615 | 13113 | 2912 | 665 | 8651 | 1641 | 2940 | 12012 | 889 | 1119 | 684 | 1963 | 7926 | 1027 | 396 | 2492 | 3750 | 1238 | 3354 | 401 | 158095 |
| | '47 | 1430 | 247 | 358 | 4425 | 574 | 10949 | 2284 | 582 | 7510 | 1603 | 2199 | 9441 | 739 | 886 | 626 | 1578 | 7425 | 787 | 257 | 1973 | 2791 | 1035 | 2809 | 347 | 130765 |
| | '46 | 184 | 33 | 67 | 586 | 60 | 1530 | 291 | 83 | 926 | 476 | 311 | 1338 | 108 | 129 | 97 | 244 | 872 | 86 | 28 | 708 | 380 | 161 | 364 | 48 | 23712 |
| | '45-'42 | 439 | 85 | 119 | 1110 | 160 | 2626 | 763 | 192 | 2436 | 426 | 1025 | 2784 | 246 | 279 | 182 | 658 | 2215 | 385 | 72 | 485 | 1254 | 498 | 935 | 102 | 40958 |
| | '41 | 1143 | 209 | 306 | 3800 | 380 | 7566 | 1966 | 411 | 6843 | 1194 | 2473 | 8716 | 667 | 755 | 502 | 1627 | 5047 | 984 | 190 | 1763 | 3455 | 1243 | 2904 | 329 | 116138 |
| | '40 | 741 | 172 | 277 | 2758 | 292 | 6004 | 1263 | 288 | 5641 | 982 | 1665 | 6172 | 458 | 650 | 444 | 1255 | 3337 | 753 | 137 | 1364 | 2415 | 1108 | 2256 | 239 | 88774 |
| | '39 | 533 | 122 | 211 | 2107 | 220 | 4688 | 770 | 170 | 3871 | 649 | 1154 | 5014 | 490 | 384 | 227 | 897 | 2265 | 648 | 119 | 897 | 1739 | 765 | 1905 | 124 | 65338 |
| | '38 | 268 | 54 | 104 | 1144 | 96 | 2329 | 295 | 85 | 1608 | 306 | 639 | 2563 | 187 | 96 | 120 | 261 | 1092 | 297 | 53 | 367 | 880 | 347 | 788 | 74 | 30733 |
| | '37 | 545 | 105 | 196 | 2325 | 115 | 4516 | 313 | 128 | 3147 | 530 | 1168 | 5318 | 381 | 201 | 177 | 485 | 1684 | 511 | 95 | 410 | 1679 | 664 | 1787 | 114 | 55131 |
| | '36 | 313 | 66 | 91 | 815 | 56 | 1819 | 113 | 60 | 1356 | 369 | 705 | 1689 | 98 | 102 | 83 | 177 | 755 | 241 | 38 | 239 | 1097 | 277 | 992 | 76 | 28360 |
| | '35 | 185 | 19 | 45 | 409 | 27 | 962 | 86 | 47 | 695 | 148 | 341 | 791 | 40 | 43 | 70 | 94 | 362 | 102 | 29 | 122 | 563 | 148 | 430 | 30 | 13606 |
| | '34 | 89 | 16 | 39 | 272 | 11 | 770 | 51 | 24 | 390 | 69 | 195 | 524 | 37 | 42 | 32 | 31 | 212 | 29 | 14 | 76 | 277 | 67 | 223 | 15 | 8412 |
| | Before '34 | 312 | 34 | 79 | 880 | 36 | 1735 | 68 | 69 | 713 | 113 | 383 | 1176 | 65 | 64 | 90 | 94 | 354 | 71 | 48 | 130 | 548 | 147 | 603 | 32 | 19456 |
| | Unid.* | 37 | | 1 | 18 | 10 | 65 | 2 | 41 | 9 | 5 | 60 | 6 | 4 | 8 | 3 | 53 | 39 | 3 | | 15 | 16 | 1 | 30 | 2 | 1973 |
| | Total | 11067 | 2162 | 3383 | 38478 | 4665 | 85303 | 16922 | 4236 | 60995 | 12284 | 19390 | 80734 | 6070 | 7265 | 4870 | 14473 | 52562 | 9043 | 2183 | 17069 | 28330 | 9793 | 24668 | 2998 | 1111666 |
| WILLYS | '50 | 124 | 53 | 118 | 760 | 236 | 1354 | 281 | 58 | 961 | 46 | 71 | 1092 | 79 | 111 | 64 | 433 | 993 | 84 | 91 | 142 | 494 | 89 | 112 | 133 | 15771 |
| | '49 | 299 | 37 | 147 | 1243 | 188 | 3059 | 631 | 166 | 1830 | 283 | 248 | 1946 | 120 | 271 | 116 | 840 | 1993 | 104 | 71 | 597 | 477 | 389 | 417 | 212 | 29345 |
| | '48 | 365 | 35 | 148 | 1003 | 274 | 3336 | 461 | 512 | 2550 | 267 | 311 | 2891 | 163 | 167 | 81 | 1321 | 2963 | 123 | 90 | 1060 | 727 | 211 | 982 | 376 | 40357 |
| | '47 | 304 | 49 | 63 | 836 | 227 | 2729 | 320 | 372 | 2037 | 244 | 172 | 2032 | 146 | 93 | 58 | 1067 | 2119 | 115 | 89 | 924 | 578 | 159 | 514 | 324 | 32255 |
| | '46 | 168 | 21 | 74 | 1032 | 165 | 2317 | 83 | 220 | 1668 | 167 | 105 | 1998 | 116 | 19 | 19 | 615 | 1351 | 42 | 32 | 705 | 265 | 55 | 305 | 148 | 22262 |
| | '45-'42 | 96 | 20 | 42 | 634 | 112 | 1359 | 157 | 86 | 909 | 167 | 234 | 739 | 107 | 72 | 23 | 515 | 1094 | 105 | 11 | 359 | 747 | 146 | 107 | 43 | 15728 |
| | '41 | 107 | 27 | 67 | 607 | 59 | 1290 | 370 | 68 | 1129 | 179 | 435 | 1802 | 154 | 136 | 68 | 386 | 589 | 146 | 24 | 209 | 465 | 234 | 173 | 38 | 18691 |
| | '40 | 87 | 20 | 94 | 696 | 60 | 1438 | 306 | 56 | 1652 | 239 | 542 | 1594 | 104 | 154 | 94 | 431 | 593 | 79 | 35 | 193 | 479 | 298 | 434 | 43 | 19897 |
| | '39 | 33 | 12 | 33 | 305 | 21 | 771 | 89 | 26 | 558 | 104 | 142 | 421 | 12 | 43 | 23 | 110 | 200 | 38 | 9 | 117 | 152 | 102 | 159 | 10 | 8029 |
| | '38 | 78 | 9 | 21 | 301 | 33 | 818 | 109 | 38 | 512 | 133 | 171 | 512 | 24 | 59 | 32 | 88 | 252 | 34 | 9 | 121 | 161 | 131 | 206 | 21 | 8633 |
| | '37 | 194 | 28 | 66 | 719 | 77 | 1471 | 227 | 46 | 1778 | 323 | 431 | 1196 | 54 | 150 | 57 | 182 | 540 | 87 | 35 | 219 | 601 | 300 | 585 | 48 | 23963 |
| | '36 | 24 | 7 | 18 | 39 | 14 | 100 | 13 | 8 | 197 | 44 | 201 | 43 | 1 | 15 | 8 | 51 | 77 | 13 | 8 | 18 | 215 | 24 | 20 | 2 | 4132 |
| | '35 | 2 | 4 | 4 | 18 | 6 | 29 | 8 | | 80 | 16 | 78 | 13 | | 13 | | 30 | 32 | 6 | 1 | 9 | 86 | 7 | 12 | 1 | 2466 |
| | '34 | 1 | 1 | | 8 | 1 | 35 | 12 | | 22 | 7 | 39 | 24 | 2 | 9 | | 19 | 19 | 2 | 1 | 3 | 39 | 3 | 5 | 2 | 1187 |
| | Before '34 | 237 | 12 | 31 | 278 | 19 | 933 | 38 | 100 | 751 | 72 | 149 | 739 | 31 | 52 | 87 | 52 | 198 | 23 | 43 | 49 | 244 | 124 | 483 | 18 | 10857 |
| | Unid.* | 5 | 1 | | 10 | 8 | 27 | 3 | | 12 | 2 | 3 | 78 | 4 | 6 | | 56 | 15 | | 3 | 3 | 1 | 2 | 16 | 1 | 818 |
| | Total | 2122 | 336 | 946 | 8479 | 1500 | 21066 | 3106 | 1778 | 16846 | 2295 | 3330 | 17112 | 1117 | 1370 | 730 | 6195 | 13028 | 1001 | 582 | 4728 | 5981 | 2234 | 4229 | 1419 | 254511 |
| MISC. | '50 | 40 | 9 | 32 | 385 | 55 | 1510 | 131 | 4 | 215 | 20 | 165 | 162 | 37 | 76 | 21 | 61 | 686 | 21 | 32 | 140 | 639 | 19 | 72 | 4 | 8779 |
| | '49 | 206 | 12 | 63 | 718 | 91 | 2228 | 206 | 11 | 458 | 66 | 84 | 501 | 96 | 200 | 8 | 207 | 1390 | 53 | 94 | 206 | 432 | 106 | 374 | 31 | 15739 |
| | '48 | 163 | 22 | 72 | 1570 | 58 | 5118 | 364 | 20 | 883 | 86 | 189 | 1683 | 128 | 187 | 18 | 150 | 2039 | 32 | 63 | 365 | 700 | 133 | 223 | 22 | 25767 |
| | '47 | 84 | 10 | 7 | 123 | 35 | 487 | 55 | 15 | 226 | 22 | 32 | 142 | 22 | 67 | 3 | 44 | 661 | 6 | 11 | 71 | 24 | 129 | 123 | 12 | 4846 |
| | '46 | 63 | 9 | 11 | 102 | 20 | 226 | 26 | 12 | 166 | 11 | 20 | 115 | 14 | 42 | 7 | 51 | 367 | 13 | 7 | 73 | 13 | 41 | 55 | 13 | 3182 |
| | '45-'42 | 45 | 9 | 4 | 29 | 28 | 113 | 33 | 6 | 140 | 13 | 26 | 49 | 12 | 50 | 2 | 76 | 267 | 2 | 1 | 29 | 64 | 184 | 128 | 14 | 2422 |
| | '41 | 118 | 14 | 74 | 1 | 37 | 380 | 423 | 8 | 315 | 40 | 36 | 328 | 31 | 73 | 7 | 53 | 852 | 13 | 8 | 48 | 403 | 109 | 387 | 26 | 5805 |
| | '40 | 145 | 7 | 6 | 65 | 19 | 426 | 54 | 9 | 291 | 40 | 23 | 128 | 22 | 38 | 3 | 53 | 398 | 7 | 8 | 53 | 91 | 110 | 167 | 26 | 4253 |
| | '39 | 69 | 3 | 6 | 75 | 16 | 282 | 61 | 12 | 290 | 37 | 44 | 130 | 22 | 27 | 5 | 49 | 635 | 4 | 9 | 27 | 49 | 128 | 119 | 17 | 4202 |
| | '38 | 80 | 3 | 12 | 62 | 14 | 219 | 39 | 7 | 167 | 32 | 10 | 73 | 22 | 24 | 5 | 34 | 180 | 6 | 2 | 48 | 39 | 74 | 66 | 11 | 2813 |
| | '37 | 57 | 8 | 6 | 89 | 11 | 310 | 56 | 13 | 301 | 23 | 38 | 121 | 60 | 17 | 7 | 46 | 232 | 21 | 32 | 55 | 117 | 86 | 213 | 15 | 4228 |
| | '36 | 54 | 9 | 12 | 110 | 11 | 355 | 29 | 10 | 338 | 70 | 77 | 237 | 33 | 16 | 7 | 41 | 219 | 17 | 9 | 43 | 98 | 64 | 149 | 11 | 4828 |
| | '35 | 48 | 3 | 14 | 109 | 13 | 247 | 17 | 6 | 230 | 33 | 73 | 177 | 36 | 11 | 3 | 17 | 118 | 9 | 6 | 41 | 58 | 31 | 99 | 9 | 3292 |
| | '34 | 17 | 6 | 4 | 69 | 6 | 222 | 20 | 2 | 146 | 28 | 28 | 142 | 31 | 11 | 4 | 12 | 72 | 9 | 8 | 31 | 60 | 33 | 46 | 5 | 2398 |
| | Before '34 | 418 | 52 | 153 | 883 | 46 | 2207 | 202 | 129 | 1424 | 234 | 651 | 1667 | 128 | 108 | 147 | 132 | 932 | 47 | 102 | 178 | 590 | 244 | 880 | 49 | 27703 |
| | Unid.* | 98 | 3 | 5 | 184 | 24 | 452 | 327 | 26 | 520 | 49 | 39 | 251 | 80 | 49 | 14 | 109 | 743 | 12 | 16 | 12 | 29 | 36 | 213 | 4 | 10094 |
| | Total | 1623 | 179 | 423 | 4647 | 487 | 14792 | 1683 | 290 | 6110 | 824 | 1825 | 5878 | 779 | 981 | 261 | 1135 | 9319 | 274 | 430 | 1620 | 3408 | 1505 | 3273 | 259 | 129547 |
| Total All Makes | | 496129 | 49821 | 123659 | 1295784 | 149882 | 2963658 | 724719 | 165237 | 2177771 | 359638 | 488103 | 2297838 | 197805 | 269919 | 194851 | 553350 | 1858284 | 182589 | 84150 | 626465 | 689572 | 340682 | 872847 | 91318 | 33822298 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

For Summary of Cars in Use by Makes, by Model Year, see page 114

● TOTAL REGISTRATIONS ●

# TRUCKS IN USE BY MAKES,

| Model | Yr. | Ala. | Ariz. | Ark. | Calif. | Colo. | Conn. | Del. | D.C. | Fla. | Ga. | Idaho | Ill. | Ind. | Iowa | Kan. | Ky. | La. | Me. | Md. | Mass. | Mich. | Minn. | Miss. | Mo. | Mont. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUTOCAR | '50 | 1 | | | 41 | 1 | 28 | 7 | 2 | 2 | 1 | | 104 | 9 | 2 | | 4 | 2 | 4 | 18 | 166 | 13 | 2 | | 5 | |
| | '49 | 12 | 1 | | 90 | 3 | 56 | 9 | 2 | 6 | 2 | 1 | 74 | 10 | 10 | | | 8 | 5 | 29 | 168 | 30 | 19 | | 17 | 5 |
| | '48 | 9 | 1 | | 168 | 12 | 89 | 19 | 2 | 21 | 6 | | 158 | 37 | 1 | 1 | 33 | 12 | 9 | 58 | 225 | 91 | 29 | | 13 | 5 |
| | '47 | 16 | | | 488 | 47 | 165 | 28 | 9 | 35 | 3 | 5 | 271 | 45 | 6 | 7 | 30 | 12 | 14 | 85 | 370 | 101 | 57 | | 47 | 4 |
| | '46 | 18 | 11 | | 433 | 10 | 231 | 32 | 10 | 106 | 18 | 5 | 144 | 33 | 3 | 4 | 6 | 22 | 16 | 96 | 488 | 77 | 25 | 5 | 90 | 5 |
| | '45 | 8 | 1 | | 205 | 29 | 99 | 14 | 10 | 46 | 6 | 6 | 101 | 14 | 2 | 9 | 5 | 5 | 7 | 41 | 247 | 29 | 9 | | 53 | 3 |
| | '44 | 1 | 14 | | 185 | 6 | 45 | 9 | 1 | 1 | 3 | 5 | 27 | 6 | | 1 | 4 | 3 | 3 | 25 | 171 | 16 | 9 | | 25 | 1 |
| | '43 | | 12 | | 41 | 1 | 3 | | | 2 | 1 | 1 | 3 | 2 | 1 | 3 | 1 | | | 3 | 14 | 6 | 3 | | 1 | |
| | '42 | 3 | 23 | | 87 | 10 | 15 | 5 | 3 | 14 | 4 | 10 | 36 | 4 | 2 | 6 | 1 | 11 | 3 | 15 | 76 | 16 | 4 | 1 | 7 | 2 |
| | '41 | 8 | 15 | | 345 | 15 | 88 | 16 | 4 | 13 | 7 | 10 | 88 | 4 | 1 | 2 | 7 | 6 | 4 | 53 | 273 | 30 | 5 | 4 | 31 | 4 |
| | '40 | 4 | 3 | | 175 | 1 | 44 | 6 | 3 | 3 | 2 | | 51 | 4 | 2 | 1 | 3 | 2 | 1 | 24 | 171 | 16 | 2 | | 17 | 1 |
| | '39 | | 2 | | 102 | 1 | 45 | 9 | 10 | | 1 | 1 | 48 | 1 | 13 | | 2 | | 2 | 28 | 138 | 6 | | | 13 | |
| | '38 | | 2 | | 88 | 5 | 33 | 8 | 10 | 3 | | | 25 | 3 | 8 | | 1 | 2 | 1 | 16 | 93 | 5 | 8 | | 10 | |
| | '37 | 1 | 1 | | 112 | 1 | 34 | 7 | 4 | 2 | | 1 | 23 | 2 | | | 4 | | 1 | 20 | 112 | 9 | 4 | | 10 | |
| | '36 | | | | 31 | | 20 | 5 | 2 | 2 | | 1 | 33 | 2 | | 1 | 1 | | 2 | 12 | 69 | 6 | 1 | | 4 | |
| | '35 | | | | 23 | | 17 | 3 | 2 | | | | 24 | 2 | | | | | 2 | 6 | 62 | | 4 | | 1 | |
| | '34 | 1 | | | 25 | | 14 | 3 | | | | | 9 | | 1 | 1 | 1 | | | 5 | 80 | 1 | 7 | | | |
| | Before '34 | 2 | | | 208 | 1 | 27 | 7 | 3 | 8 | 2 | 1 | 73 | 4 | 1 | 2 | 1 | 2 | 4 | 17 | 89 | 5 | 8 | | 10 | |
| | Unid.* | 1 | | | 3 | | 1 | 1 | 5 | 2 | 2 | | 2 | | | | | 6 | | 4 | | 15 | | | 2 | |
| | Total | 85 | 86 | | 2828 | 143 | 1041 | 190 | 90 | 282 | 58 | 47 | 1294 | 182 | 50 | 40 | 104 | 93 | 80 | 555 | 3012 | 472 | 230 | 10 | 359 | 39 |
| BROCKWAY | '50 | 1 | | | | | 40 | 6 | 4 | 1 | 2 | | 6 | 2 | | | | | 11 | 46 | 89 | | | | | |
| | '49 | 1 | | | 2 | | 26 | 7 | 2 | 2 | 5 | | 13 | 7 | | | | 1 | 9 | 48 | 115 | 3 | | | 1 | |
| | '48 | 4 | | | 9 | 1 | 86 | 13 | 19 | 5 | 3 | 1 | 21 | 16 | 4 | | | | 21 | 110 | 184 | 48 | | 7 | 6 | |
| | '47 | 10 | | | 18 | | 124 | 18 | 21 | 4 | 1 | 1 | 48 | 64 | 2 | 3 | | | 29 | 148 | 260 | 62 | 2 | | 17 | |
| | '46 | 10 | | | 37 | 1 | 110 | 11 | 17 | 3 | 2 | | 44 | 101 | | | | 1 | 23 | 96 | 288 | 67 | 5 | | 3 | |
| | '45 | 3 | | | 13 | | 69 | 8 | 13 | 3 | 3 | | 14 | 73 | | 1 | 3 | 1 | 8 | 53 | 187 | 8 | 2 | | 2 | |
| | '44 | | | | 7 | | 26 | 5 | 4 | | | | 3 | 11 | | | | | 4 | 41 | 78 | | | 1 | | |
| | '43 | | | | 8 | | | | 1 | 1 | 1 | | 1 | 1 | | 5 | | | 1 | 2 | 4 | 1 | 1 | | | |
| | '42 | | | | 7 | | 7 | | 1 | 6 | 1 | 1 | 4 | 1 | | 1 | | 1 | 5 | 8 | 31 | | | | | |
| | '41 | 1 | 1 | | 14 | | 89 | 6 | 12 | 3 | 1 | | 4 | 3 | | | | | 10 | 47 | 167 | 1 | | | 1 | |
| | '40 | | | | 5 | | 30 | 3 | 7 | 3 | | | 3 | | | 2 | | | 8 | 26 | 69 | 1 | | | 1 | |
| | '39 | | | | 8 | | 36 | 3 | 4 | | | | 3 | | | | | | 4 | 30 | 101 | | | | | |
| | '38 | | | | 6 | | 40 | 3 | 5 | | | | 3 | | | | | | 4 | 16 | 62 | | | | | |
| | '37 | | 1 | | 15 | 1 | 27 | 3 | 2 | | | | 2 | | | | | | 2 | 15 | 77 | 1 | | | 2 | |
| | '36 | | 14 | | 4 | | 56 | 3 | 4 | | | | | | | | | | 5 | 14 | 46 | 1 | | | | |
| | '35 | | | | 1 | | 6 | | 3 | 4 | | | 1 | 1 | | | | | 3 | 6 | 25 | | | | | |
| | '34 | | | | 1 | | 8 | | | | | | 1 | | | | | | 1 | 4 | 15 | | | | | |
| | Before '34 | | | | 11 | | 26 | | 2 | 1 | 1 | | 1 | 1 | | | | | 2 | 9 | 51 | 1 | 5 | | 9 | |
| | Unid.* | | | | | | | | 3 | | 1 | | 1 | 13 | | | | 1 | 1 | 5 | | 23 | | | | |
| | Total | 30 | 16 | | 168 | 3 | 806 | 89 | 124 | 38 | 21 | 3 | 170 | 294 | 3 | 16 | 3 | 6 | 150 | 726 | 1847 | 217 | 15 | 8 | 42 | |
| CHEVROLET | '50 | 4418 | 699 | 4057 | 10361 | 3578 | 1593 | 577 | 625 | 4083 | 4763 | 1126 | 11421 | 6374 | 4427 | 3662 | 2612 | 3375 | 1088 | 2185 | 3201 | 8764 | 3894 | 3420 | 11402 | 1196 |
| | '49 | 8280 | 1762 | 8503 | 18347 | 5049 | 2120 | 1024 | 741 | 7100 | 8543 | 2442 | 15137 | 8244 | 9563 | 8995 | 8764 | 7808 | 1786 | 3890 | 3601 | 11169 | 7763 | 7843 | 10899 | 2783 |
| | '48 | 6936 | 1749 | 6502 | 17378 | 4111 | 2531 | 957 | 824 | 6268 | 7623 | 2339 | 14362 | 7047 | 7166 | 6293 | 6969 | 6332 | 2568 | 3630 | 9074 | 9248 | 5925 | 6763 | 8731 | 2479 |
| | '47 | 6128 | 1172 | 3618 | 15626 | 2894 | 1744 | 650 | 626 | 4811 | 4955 | 1556 | 10378 | 5630 | 5181 | 5545 | 4954 | 3544 | 1559 | 2471 | 3844 | 6908 | 3506 | 3963 | 6820 | 1519 |
| | '46 | 6628 | 1715 | 4922 | 11709 | 3238 | 2506 | 1039 | 659 | 4740 | 6862 | 2049 | 10114 | 6380 | 5786 | 6482 | 5838 | 4883 | 2289 | 3934 | 4408 | 6841 | 5579 | 6285 | 6902 | 2363 |
| | '45 | 772 | 217 | 734 | 4159 | 368 | 312 | 105 | 16 | 686 | 783 | 273 | 1269 | 802 | 804 | 1010 | 956 | 500 | 398 | 399 | 520 | 1099 | 528 | 601 | 1105 | 341 |
| | '44 | 459 | 109 | 327 | 1871 | 291 | 141 | 45 | 12 | 259 | 376 | 176 | 568 | 96 | 408 | 483 | 290 | 205 | 254 | 170 | 200 | 473 | 325 | 280 | 432 | 106 |
| | '43 | 23 | 14 | 21 | 820 | 28 | 4 | 7 | 2 | 57 | 34 | 99 | 31 | 16 | 30 | 23 | 36 | 27 | 16 | 29 | 40 | 32 | 25 | 33 | 42 | 80 |
| | '42 | 3624 | 688 | 2118 | 3408 | 1735 | 519 | 247 | 123 | 2246 | 3136 | 939 | 2730 | 1925 | 1576 | 2099 | 1724 | 2053 | 854 | 935 | 1155 | 1949 | 1650 | 2787 | 2071 | 950 |
| | '41 | 4497 | 1272 | 3576 | 14359 | 2813 | 2039 | 836 | 441 | 3402 | 4371 | 1740 | 7705 | 4629 | 4123 | 5621 | 3835 | 2855 | 1551 | 2413 | 3319 | 5030 | 3977 | 3382 | 5770 | 1098 |
| | '40 | 3231 | 1038 | 2618 | 11496 | 2290 | 1765 | 471 | 269 | 2500 | 3113 | 1406 | 6742 | 3893 | 3502 | 3738 | 3177 | 2602 | 1338 | 1798 | 3100 | 3998 | 3510 | 2812 | 5276 | 1033 |
| | '39 | 2313 | 807 | 2014 | 8069 | 1972 | 1360 | 351 | 190 | 1849 | 2260 | 1008 | 4736 | 2911 | 2992 | 3003 | 2339 | 1740 | 1040 | 1339 | 2296 | 2826 | 2398 | 1846 | 4030 | 1117 |
| | '38 | 1346 | 509 | 1368 | 6157 | 1339 | 782 | 224 | 104 | 1215 | 1286 | 682 | 3039 | 2012 | 1876 | 3067 | 1585 | 1069 | 698 | 851 | 1395 | 1747 | 2133 | 1282 | 2710 | 793 |
| | '37 | 2161 | 1001 | 2146 | 9613 | 2084 | 1572 | 381 | 123 | 1765 | 2048 | 1151 | 4522 | 3248 | 2758 | 3695 | 2422 | 1763 | 1151 | 1445 | 2330 | 3700 | 3279 | 2006 | 3997 | 1054 |
| | '36 | 1527 | 723 | 1775 | 8665 | 2041 | 1367 | 269 | 81 | 1520 | 1760 | 1254 | 3714 | 3050 | 2456 | 3644 | 1532 | 1485 | 875 | 1021 | 1794 | 2920 | 3027 | 1419 | 3742 | 1052 |
| | '35 | 720 | 447 | 823 | 6314 | 994 | 846 | 120 | 38 | 718 | 978 | 673 | 1571 | 2152 | 1386 | 1980 | 706 | 663 | 553 | 455 | 863 | 1536 | 2153 | 670 | 1964 | 751 |
| | '34 | 378 | 323 | 536 | 5032 | 908 | 706 | 112 | 22 | 722 | 474 | 595 | 1225 | 1118 | 1026 | 1697 | 419 | 416 | 382 | 427 | 622 | 931 | 1716 | 480 | 1410 | 693 |
| | Before '34 | 785 | 656 | 1609 | 12774 | 1863 | 1760 | 479 | 24 | 2295 | 1775 | 638 | 2209 | 2663 | 1726 | 4112 | 921 | 1238 | 761 | 681 | 796 | 1850 | 4139 | 996 | 3108 | 653 |
| | Unid.* | 104 | 28 | 337 | 17 | 63 | 6 | 82 | 250 | 234 | 551 | 44 | 370 | 46 | 27 | 60 | 91 | 783 | 4 | 311 | 50 | 1296 | 112 | 251 | 1761 | 9 |
| | Total | 53100 | 15129 | 47597 | 166377 | 37657 | 23673 | 7478 | 5170 | 46470 | 55691 | 20188 | 101841 | 61446 | 56891 | 67203 | 49172 | 43321 | 19155 | 28374 | 38608 | 72297 | 53639 | 47079 | 81992 | 21565 |
| CROSLEY | '50 | 29 | | 1 | 9 | 71 | 4 | 12 | | 14 | 4 | | 13 | 2 | | 3 | 1 | 11 | | 1 | 3 | 3 | 1 | 2 | 1 | |
| | '49 | 96 | 12 | 1 | 20 | 56 | 1 | 18 | | 27 | 4 | | 14 | 10 | 2 | 14 | 6 | 24 | 1 | 6 | 3 | 7 | 3 | 6 | 9 | 12 |
| | '48 | 253 | 43 | 1 | 337 | 104 | 16 | 53 | 4 | 87 | 16 | 4 | 56 | 111 | 12 | 69 | 39 | 55 | 6 | 18 | 30 | 93 | 25 | 9 | 67 | 23 |
| | '47 | 27 | 13 | 1 | 271 | 30 | 14 | 41 | 4 | 119 | 26 | 7 | 37 | 117 | 9 | 29 | 45 | 15 | 12 | 14 | 41 | 44 | 48 | 12 | 35 | 2 |
| | '46 | 3 | | | 9 | 1 | 6 | | | 2 | 2 | 1 | | 1 | | | 5 | 2 | | 2 | | 1 | | 2 | | |
| | '45 | 1 | | | 2 | | | | | | | | | | | | | | | | | | | 3 | | |
| | '44 | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | '43 | 1 | | | 2 | 1 | | | | | | | 1 | | | | | | | | | | | | | |
| | '42 | | | | 6 | | 1 | 1 | | 15 | 2 | | 4 | | 1 | | | | 1 | 1 | | 2 | 3 | | | 1 |
| | '41 | | | | 13 | | 2 | 1 | | 2 | 2 | | 4 | | | | 6 | 2 | 2 | 1 | 2 | | | 5 | 1 |
| | '40 | | 1 | | 8 | 1 | | | | 1 | | | | | | | 1 | | | | | 1 | | | |
| | '39 | | | | | 1 | | | | 1 | | | 1 | | | | 2 | | 1 | | | 2 | | | | |
| | '38 | 3 | | | | 2 | | | | | | | | | | | 5 | | | | | | | | | |
| | '37 | | | | | 3 | | | | | | | 1 | | | | 2 | 1 | | 1 | | 1 | | 2 | | |
| | '36 | | | | 2 | | | | | | 1 | | | | | 1 | 4 | | | | | | | | | |
| | '35 | | | | | | | | | | | | 1 | | | | 1 | | | | | | | | | |
| | '34 | | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| | Before '34 | | | | | 4 | | | | | | | | | | | 1 | | | | | 1 | | | | |
| | Unid.* | 1 | | | | 1 | | 1 | 2 | 1 | 2 | | 2 | 9 | | | | 2 | | | 1 | 1 | | 1 | 1 | |
| | Total | 417 | 69 | 4 | 737 | 275 | 47 | 130 | 10 | 269 | 61 | 12 | 119 | 262 | 23 | 108 | 118 | 111 | 23 | 44 | 79 | 119 | 80 | 37 | 120 | 39 |
| DIAMOND T | '50 | 5 | 9 | 13 | 125 | 23 | 94 | 5 | 23 | 65 | 10 | 15 | 452 | 80 | 67 | 24 | 34 | 28 | 8 | 27 | 95 | 79 | 32 | 4 | 37 | 9 |
| | '49 | 28 | 8 | 47 | 201 | 78 | 70 | 7 | 11 | 121 | 71 | 76 | 432 | 89 | 169 | 81 | 94 | 128 | 2 | 39 | 104 | 129 | 58 | 40 | 73 | 72 |
| | '48 | 79 | 10 | 96 | 504 | 154 | 160 | 17 | 33 | 136 | 156 | 117 | 1068 | 288 | 329 | 256 | 210 | 212 | 13 | 87 | 246 | 214 | 274 | 100 | 167 | 176 |
| | '47 | 94 | 25 | 111 | 431 | 128 | 148 | 17 | 33 | 181 | 174 | 72 | 1100 | 320 | 318 | 248 | 146 | 230 | 22 | 94 | 286 | 316 | 208 | 102 | 247 | 69 |
| | '46 | 67 | 8 | 47 | 281 | 86 | 83 | 6 | 11 | 106 | 79 | 40 | 591 | 161 | 166 | 100 | 68 | 87 | 9 | 37 | 141 | 135 | 105 | 51 | 159 | 45 |
| | '45 | 34 | 14 | 18 | 170 | 52 | 51 | 5 | 3 | 45 | 17 | 26 | 317 | 86 | 86 | 76 | 66 | 27 | 1 | 25 | 92 | 92 | 66 | 23 | 99 | 20 |
| | '44 | 14 | 1 | 12 | 68 | 19 | 12 | 4 | 1 | 11 | 6 | 20 | 139 | 38 | 50 | 24 | 12 | 24 | 3 | 16 | 38 | 49 | 24 | 13 | 45 | 15 |
| | '43 | 1 | 3 | | 43 | 2 | | | | 3 | 1 | 3 | 8 | | | 5 | 1 | 4 | | 1 | 2 | 10 | 2 | 1 | 4 | 2 |
| | '42 | 15 | 3 | 15 | 116 | 13 | 15 | 1 | 4 | 29 | 10 | 26 | 96 | 18 | 64 | 27 | 17 | 72 | 9 | 9 | 73 | 47 | 25 | 27 | 14 | 19 |
| | '41 | 23 | 10 | 11 | 362 | 54 | 98 | 7 | 10 | 56 | 26 | 18 | 655 | 109 | 128 | 113 | 23 | 93 | 10 | 43 | 222 | 101 | 63 | 19 | 166 | 39 |
| | '40 | 22 | 6 | 14 | 494 | 49 | 96 | 6 | 1 | 57 | 24 | 31 | 648 | 101 | 163 | 84 | 51 | 44 | 9 | 34 | 181 | 75 | 109 | 30 | 174 | 28 |
| | '39 | 6 | 5 | 17 | 125 | 70 | 78 | 7 | 3 | 21 | 10 | 24 | 463 | 75 | 126 | 81 | 31 | 55 | 8 | 37 | 139 | 40 | 102 | 11 | 87 | 22 |
| | '38 | 1 | 8 | 22 | 116 | 65 | 50 | 4 | 2 | 11 | 6 | 20 | 308 | 38 | 81 | 116 | 37 | 21 | 16 | 18 | 86 | 33 | 110 | 11 | 77 | 27 |
| | '37 | 4 | 13 | 38 | 224 | 130 | 86 | 5 | 4 | 20 | 16 | 54 | 413 | 117 | 123 | 161 | 63 | 46 | 10 | 31 | 148 | 61 | 150 | 3 | 130 | 36 |
| | '36 | 2 | 5 | 8 | 216 | 88 | 58 | 9 | 3 | 16 | 5 | 27 | 381 | 104 | 99 | 110 | 56 | 19 | 8 | 39 | 85 | 39 | 163 | 5 | 123 | 53 |
| | '35 | | 2 | 2 | 113 | 45 | 49 | 3 | 1 | 10 | 6 | 15 | 199 | 57 | 59 | 84 | 34 | 3 | 8 | 12 | 89 | 21 | 92 | | 44 | 51 |
| | '34 | | 2 | 4 | 57 | 24 | 31 | 2 | | 9 | 2 | | 174 | 57 | 59 | 52 | 23 | 13 | 6 | 9 | 37 | 13 | 76 | | 50 | 23 |
| | Before '34 | 2 | 1 | 4 | 82 | 25 | 45 | 4 | 4 | 10 | 6 | 4 | 427 | 55 | 44 | 47 | 28 | 19 | 15 | 14 | 63 | 14 | 112 | 1 | 85 | 6 |
| | Unid.* | 3 | | 3 | 2 | 22 | 3 | 1 | 2 | 13 | 6 | 3 | 57 | 1 | 5 | | 5 | 44 | | 7 | 4 | 66 | | 1 | 26 | |
| | Total | 400 | 133 | 482 | 3730 | 1127 | 1197 | 109 | 149 | 920 | 631 | 581 | 7932 | 1804 | 2136 | 1689 | 999 | 1168 | 157 | 579 | 2089 | 1534 | 1793 | 442 | 1807 | 706 |

Unid* — Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# STATES AND MODEL YEAR

| Model | Yr. | Neb. | Nev. | N.H. | N. J. | N.M. | N. Y. | N. C. | N. D. | Ohio | Okla. | Ore. | Pa. | R. I. | S. C. | S. D. | Tenn. | Tex. | Utah | Vt. | Va. | Wash. | W.Va. | Wis. | Wyo. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUTOCAR | '50 | | | 7 | 113 | | 241 | 22 | | 60 | 1 | 8 | 116 | 29 | 2 | | 1 | 35 | | | 29 | 3 | | 2 | | 1083 |
| | '49 | 1 | 1 | 11 | 97 | 1 | 361 | 20 | 3 | 61 | 6 | 11 | 206 | 35 | 11 | 1 | 6 | 26 | | 1 | 23 | 7 | 1 | 11 | | 1488 |
| | '48 | 7 | 1 | 5 | 197 | 1 | 506 | 52 | 9 | 113 | 6 | 62 | 403 | 79 | 4 | | 12 | 45 | | 3 | 64 | 17 | 39 | 38 | | 2053 |
| | '47 | 2 | 5 | 21 | 388 | | 916 | 33 | 1 | 247 | 7 | 46 | 602 | 77 | 7 | 5 | 3 | 10 | | 5 | 99 | 38 | 55 | 62 | 1 | 4426 |
| | '46 | 4 | 6 | 24 | 450 | 3 | 923 | 89 | | 182 | 11 | 23 | 469 | 172 | 8 | 3 | 6 | 17 | | 7 | 125 | 14 | 61 | 16 | 4 | 4524 |
| | '45 | 2 | | 7 | 169 | | 395 | 40 | 1 | 115 | 9 | 33 | 247 | 65 | 4 | | | 12 | | 6 | 32 | 28 | 19 | 21 | 4 | 2211 |
| | '44 | 1 | 2 | 3 | 114 | 1 | 116 | 12 | | 62 | 2 | 6 | 199 | 31 | 4 | | 2 | 2 | | | 34 | 2 | 8 | 1 | | 1165 |
| | '43 | 1 | | 1 | 14 | 1 | 31 | 3 | 1 | 4 | 18 | 2 | 18 | 1 | | | | 7 | 2 | 2 | 2 | 9 | 6 | 2 | | 221 |
| | '42 | 3 | 1 | 2 | 91 | 7 | 69 | 3 | 1 | 16 | 20 | 16 | 92 | 20 | 9 | | 6 | 18 | 4 | 3 | 17 | 19 | 3 | 7 | 1 | 789 |
| | '41 | 2 | 2 | 7 | 232 | 4 | 384 | 17 | | 88 | 6 | 14 | 303 | 86 | 4 | | 1 | 18 | 6 | | 42 | 17 | 9 | 13 | 1 | 2287 |
| | '40 | 1 | 2 | 6 | 120 | | 234 | 9 | 2 | 52 | 5 | 4 | 165 | 37 | 2 | 1 | | 4 | 2 | | 21 | 4 | 3 | 5 | 2 | 1219 |
| | '39 | 1 | 1 | 3 | 143 | | 280 | 1 | | 46 | 1 | | 186 | 28 | | | 2 | 3 | | 2 | 18 | 1 | 8 | 4 | | 1169 |
| | '38 | | 1 | 2 | 94 | | 171 | 5 | 1 | 21 | | | 116 | 21 | 2 | 1 | | | | 1 | 6 | | 2 | 4 | | 785 |
| | '37 | 1 | 1 | 3 | 138 | | 279 | 2 | | 36 | | 1 | 110 | 24 | 2 | 1 | 1 | 1 | 1 | 2 | 6 | | 4 | 5 | | 968 |
| | '36 | | | 3 | 74 | 1 | 194 | 1 | 1 | 21 | | 3 | 89 | 9 | 1 | | | | | 2 | 1 | | 1 | 7 | | 603 |
| | '35 | | | | 41 | | 117 | | | 5 | | | 34 | 7 | 1 | 1 | | | | | 2 | 2 | | | | 365 |
| | '34 | 1 | | | 41 | | 123 | | | 5 | 1 | | 27 | 7 | | | 1 | | | 2 | 1 | 1 | 5 | | | 363 |
| | Before '34 | | | 1 | 79 | | 242 | 5 | 2 | 13 | 3 | 10 | 154 | 16 | 1 | 1 | | 2 | | | 9 | 10 | 5 | 5 | 1 | 1029 |
| | Unid.* | | | | 17 | | 15 | | | 1 | 1 | | 14 | 3 | | | 3 | 1 | | | | | | | 1 | 130 |
| | Total | 27 | 25 | 108 | 2670 | 19 | 5607 | 314 | 22 | 1148 | 99 | 243 | 3553 | 738 | 62 | 13 | 48 | 201 | 13 | 33 | 496 | 172 | 224 | 211 | 15 | 27399 |
| BROCKWAY | '50 | 2 | | | 7 | | 187 | | | 331 | 2 | | 13 | | | | | 329 | 4 | | | 11 | | 12 | | 1107 |
| | '49 | 1 | | | 5 | | 193 | | | 627 | 1 | | 11 | | | | | 331 | 6 | 1 | | 26 | | 6 | | 1472 |
| | '48 | 2 | | | 16 | | 387 | | | 931 | 9 | | 40 | | 5 | | 3 | 669 | 5 | | 6 | 10 | | 23 | | 2707 |
| | '47 | | | | 10 | | 593 | | | 1283 | 7 | | 67 | | | | 6 | 981 | 11 | 1 | 8 | 12 | | 35 | | 3972 |
| | '46 | | | | 11 | | 440 | | | 1442 | 13 | | 98 | | 1 | | 8 | 571 | 5 | 3 | 8 | 5 | | 47 | 1 | 3516 |
| | '45 | | | | 6 | | 292 | | | 843 | | | 27 | | | | 1 | 295 | 5 | | 1 | | | 29 | 1 | 1968 |
| | '44 | | | | | | 180 | | | 348 | 2 | | 4 | 1 | | | 2 | 289 | 3 | | 2 | | | 9 | | 1009 |
| | '43 | | | | | | 7 | | | 12 | | | | | 1 | | | 35 | | | | 9 | | | | 91 |
| | '42 | 2 | | | 2 | | 29 | | | 87 | | | 1 | 1 | | | | 62 | 2 | 1 | | 4 | | 8 | 3 | 5 | 1 | 283 |
| | '41 | | | 3 | 4 | | 273 | | | 949 | 2 | | 26 | | | | | 271 | 7 | | 1 | 1 | 8 | 27 | 2 | | 1 | 1937 |
| | '40 | | | | | | 131 | | | 634 | 1 | | 3 | | | | | 157 | 4 | 1 | 1 | 3 | | 6 | 23 | | 2 | | 1123 |
| | '39 | | | | 2 | | 114 | | | 604 | 1 | | 2 | 1 | 1 | | | 194 | 7 | | | | | 4 | 16 | | 1 | | 1148 |
| | '38 | | | | 1 | | 91 | | | 404 | | | 1 | | | | 1 | 93 | | | | | | 4 | 12 | | 1 | | 747 |
| | '37 | | | | 1 | | 87 | | | 452 | | | 2 | | 3 | | | 107 | 5 | | | | | 1 | 7 | | 1 | | 814 |
| | '36 | | | | 1 | | 105 | | | 454 | | | 3 | | | | | 100 | | | | 1 | | 1 | 4 | 1 | 1 | | 818 |
| | '35 | | | | 2 | | 31 | | | 168 | | | | | | | | 45 | | | | 1 | | | 3 | | | | 320 |
| | '34 | | | | 3 | | 31 | | | 145 | | | 1 | | | | | 19 | | | | | | | 1 | | 1 | | 231 |
| | Before '34 | | | | 2 | | 46 | | | 277 | | | | | | | | 60 | | 1 | 1 | 1 | 3 | 4 | | | 2 | | 521 |
| | Unid.* | | | | | | 66 | | | 18 | 1 | | | | | | 2 | 14 | | | | | | | | | | | 149 |
| | Total | 7 | 3 | 73 | 3283 | | 10029 | 39 | | 269 | 3 | 11 | 4569 | 64 | 7 | 3 | 37 | 44 | 7 | 101 | 29 | 9 | 257 | 9 | | 23931 |
| CHEVROLET | '50 | 3535 | 380 | 707 | 4585 | 2822 | 6226 | 4850 | 573 | 10290 | 4937 | 1927 | 8235 | 443 | 2331 | 1371 | 4881 | 17296 | 1253 | 348 | 3863 | 3768 | 1438 | 6202 | 959 | 195710 |
| | '49 | 5379 | 547 | 856 | 6279 | 2922 | 11392 | 10629 | 3548 | 11916 | 8915 | 4381 | 13390 | 737 | 4988 | 3006 | 9939 | 28165 | 1899 | 658 | 7303 | 4386 | 3277 | 7345 | 1659 | 324270 |
| | '48 | 4234 | 478 | 1012 | 6448 | 1924 | 12940 | 9200 | 3000 | 12163 | 7949 | 4053 | 13487 | 1038 | 4729 | 2353 | 7578 | 23988 | 1502 | 897 | 6801 | 4587 | 4385 | 6316 | 1401 | 294898 |
| | '47 | 2948 | 316 | 660 | 4364 | 1319 | 9611 | 6545 | 1554 | 7970 | 5672 | 2854 | 9917 | 542 | 3025 | 1538 | 4784 | 15240 | 1011 | 583 | 5340 | 2999 | 2157 | 5083 | 911 | 205021 |
| | '46 | 3513 | 324 | 917 | 6051 | 1665 | 11211 | 11430 | 1679 | 11599 | 8198 | 3760 | 13803 | 925 | 4374 | 1652 | 6531 | 21752 | 1219 | 771 | 4993 | 4511 | 3435 | 5109 | 975 | 251556 |
| | '45 | 339 | 63 | 124 | 688 | 166 | 1692 | 1020 | 239 | 396 | 1200 | 424 | 1561 | 115 | 501 | 215 | 605 | 1543 | 140 | 101 | 1252 | 479 | 432 | 679 | 119 | 32880 |
| | '44 | 157 | 26 | 34 | 311 | 131 | 654 | 541 | 182 | 87 | 606 | 279 | 621 | 50 | 286 | 154 | 343 | 740 | 97 | 59 | 486 | 320 | 221 | 367 | 77 | 15180 |
| | '43 | 12 | 6 | 2 | 31 | 15 | 58 | 76 | 19 | 89 | 75 | 61 | 140 | | 17 | 2 | 39 | 78 | 48 | 3 | 29 | 110 | 36 | 8 | 11 | 2544 |
| | '42 | 1571 | 191 | 164 | 1440 | 769 | 2630 | 3074 | 965 | 3707 | 1914 | 1810 | 3115 | 262 | 1506 | 724 | 2779 | 9733 | 476 | 210 | 1161 | 1969 | 1407 | 1644 | 489 | 97171 |
| | '41 | 2547 | 408 | 673 | 4393 | 1148 | 8535 | 8022 | 1779 | 6880 | 4981 | 3340 | 9063 | 733 | 3156 | 1423 | 4531 | 13077 | 1031 | 551 | 3977 | 4021 | 2967 | 4437 | 848 | 185793 |
| | '40 | 1847 | 332 | 617 | 3858 | 955 | 7293 | 3933 | 1567 | 5533 | 3653 | 2348 | 6762 | 607 | 2230 | 1245 | 3120 | 9799 | 856 | 515 | 3007 | 2542 | 2863 | 3649 | 648 | 140834 |
| | '39 | 1689 | 216 | 590 | 2804 | 823 | 5166 | 3071 | 1155 | 4000 | 3327 | 1657 | 4614 | 550 | 1561 | 946 | 2218 | 8247 | 693 | 395 | 2463 | 2020 | 2045 | 2779 | 615 | 110550 |
| | '38 | 1242 | 160 | 297 | 2028 | 520 | 3969 | 1883 | 915 | 2543 | 2344 | 1093 | 3114 | 269 | 989 | 630 | 1552 | 4980 | 439 | 271 | 1634 | 1383 | 1286 | 1914 | 321 | 75025 |
| | '37 | 1512 | 278 | 523 | 3177 | 785 | 5995 | 2801 | 1272 | 5015 | 3734 | 2334 | 5745 | 493 | 1556 | 916 | 2002 | 8093 | 686 | 357 | 2387 | 2809 | 2364 | 3728 | 506 | 120494 |
| | '36 | 1688 | 222 | 433 | 2215 | 627 | 4543 | 1877 | 1014 | 3691 | 3169 | 1963 | 4163 | 459 | 1145 | 886 | 1560 | 5556 | 664 | 327 | 1844 | 2494 | 1757 | 3193 | 493 | 98888 |
| | '35 | 937 | 148 | 259 | 1132 | 284 | 2538 | 982 | 996 | 1892 | 1722 | 1063 | 1682 | 269 | 607 | 683 | 960 | 2429 | 362 | 234 | 935 | 1297 | 661 | 1887 | 256 | 54173 |
| | '34 | 970 | 122 | 223 | 939 | 228 | 2901 | 948 | 839 | 1535 | 1257 | 881 | 1703 | 147 | 428 | 569 | 344 | 1886 | 248 | 111 | 856 | 1138 | 548 | 1598 | 215 | 41445 |
| | Before '34 | 2935 | 212 | 416 | 1716 | 196 | 4321 | 1035 | 2067 | 2996 | 1946 | 1430 | 2880 | 300 | 933 | 1493 | 953 | 4193 | 300 | 203 | 994 | 2026 | 858 | 4107 | 331 | 89260 |
| | Unid.* | 95 | | 5 | 2137 | 72 | 78 | 35 | 162 | 68 | 166 | 6 | 350 | 46 | 44 | 35 | 349 | 244 | 1 | | 37 | 3 | 5 | 101 | 8 | 10929 |
| | Total | 37156 | 4399 | 8650 | 54596 | 17371 | 100655 | 69941 | 23523 | 92369 | 62775 | 35704 | 103505 | 8185 | 34110 | 19839 | 53776 | 176839 | 12923 | 6601 | 48707 | 42861 | 32939 | 69175 | 10744 | 2341539 |
| CROSLEY | '50 | 1 | 1 | 1 | 2 | 2 | 27 | 10 | 1 | 19 | 13 | 1 | 22 | 1 | 1 | | 10 | 11 | 7 | 2 | 2 | 10 | 1 | | | 326 |
| | '49 | 3 | 1 | 5 | 1 | 13 | 37 | 8 | | 38 | 13 | 4 | 44 | | | 3 | 14 | 24 | 10 | 1 | 17 | 10 | | 11 | 1 | 679 |
| | '48 | 14 | | 11 | 16 | 24 | 91 | 33 | 5 | 161 | 84 | 94 | 91 | 14 | 23 | 41 | 72 | 171 | 26 | 2 | 54 | 22 | 58 | 49 | 9 | 2547 |
| | '47 | 16 | 5 | 5 | 15 | | 88 | 39 | 2 | 180 | 17 | 57 | 61 | 16 | 18 | 11 | 61 | 70 | 9 | 4 | 60 | 27 | 40 | 6 | 1 | 1017 |
| | '46 | 1 | | 1 | | | | | | 10 | | | 1 | | 1 | | 3 | 2 | | | | | | 1 | 1 | 53 |
| | '45 | | | | | | 1 | | | | | | | | | | | | | | | | | | | 7 |
| | '44 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | '43 | | | | | | | | | | | 2 | | | | | | | | | | | | | | 7 |
| | '42 | | | | | | 5 | 1 | | 3 | 1 | 1 | 1 | | 2 | | 1 | 2 | | | 2 | 6 | 2 | | | 66 |
| | '41 | | | | 1 | | 13 | 1 | | 19 | | | 1 | 1 | 1 | | 2 | 2 | | | | 1 | 2 | | | 67 |
| | '40 | | | | | | 1 | | | | 1 | | | | | | | 1 | | 1 | | | 1 | | | 18 |
| | '39 | | | | | | | | | 1 | | | | | | | | | | | | | | | | 9 |
| | '38 | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | 12 |
| | '37 | | | | | | 1 | | | | | | | | | | | 1 | | | | | | | | 12 |
| | '36 | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| | '35 | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| | '34 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | Before '34 | | | | | | 1 | | | | | | 1 | | | | | | | | | | | | | 8 |
| | Unid.* | | | | 2 | | 1 | | | | 1 | | 1 | | | 1 | 1 | 1 | | | | | | 1 | | 33 |
| | Total | 36 | 7 | 23 | 37 | 39 | 266 | 92 | 8 | 431 | 110 | 161 | 223 | 33 | 48 | 56 | 164 | 286 | 53 | 10 | 135 | 78 | 113 | 68 | 12 | 5797 |
| DIAMOND T | '50 | 117 | 2 | 8 | 136 | 1 | 348 | 62 | 6 | 242 | 5 | 48 | 248 | 6 | 3 | 38 | 26 | 86 | 23 | 1 | 10 | 38 | 9 | 83 | 7 | 2886 |
| | '49 | 156 | 5 | 9 | 174 | 15 | 525 | 46 | 44 | 183 | 23 | 51 | 335 | 15 | 28 | 57 | 79 | 152 | 49 | 11 | 31 | 94 | 57 | 102 | 57 | 4526 |
| | '48 | 428 | 18 | 12 | 372 | 39 | 993 | 89 | 154 | 414 | 75 | 124 | 800 | 48 | 37 | 206 | 120 | 410 | 72 | 23 | 186 | 174 | 124 | 290 | 121 | 10402 |
| | '47 | 211 | 11 | 16 | 364 | 34 | 1084 | 154 | 64 | 473 | 79 | 269 | 799 | 39 | 52 | 114 | 113 | 373 | 33 | 19 | 162 | 228 | 115 | 294 | 55 | 10272 |
| | '46 | 73 | 2 | 14 | 117 | 15 | 533 | 68 | 20 | 204 | 31 | 127 | 326 | 26 | 27 | 52 | 50 | 189 | 22 | 15 | 75 | 113 | 53 | 142 | 20 | 5023 |
| | '45 | 56 | 2 | 3 | 100 | 4 | 296 | 19 | 20 | 133 | 16 | 99 | 258 | 16 | 17 | 32 | 16 | 134 | 5 | 5 | 39 | 73 | 68 | 130 | 19 | 3068 |
| | '44 | 21 | | 2 | 61 | 4 | 166 | 6 | 16 | 61 | 23 | 11 | 218 | 9 | 7 | 22 | 2 | 47 | 4 | 4 | 19 | 38 | 25 | 48 | 13 | 1483 |
| | '43 | 4 | | 1 | 4 | | 11 | 1 | | 5 | | | 18 | 22 | | | 3 | 8 | | | 1 | 14 | 2 | 3 | | 202 |
| | '42 | 13 | 6 | | 46 | | 211 | 7 | 2 | 43 | 17 | 48 | 75 | 8 | 4 | 4 | 12 | 58 | 2 | 7 | 18 | 71 | 27 | 21 | 4 | 1436 |
| | '41 | 55 | 2 | 3 | 215 | 8 | 802 | 17 | 13 | 194 | 32 | 50 | 352 | 29 | 11 | 22 | 27 | 129 | 17 | 13 | 44 | 135 | 50 | 166 | 11 | 4870 |
| | '40 | 60 | 1 | 8 | 202 | 6 | 536 | 26 | 16 | 119 | 27 | 37 | 283 | 23 | 11 | 35 | 19 | 109 | 5 | 6 | 26 | 101 | 40 | 137 | 3 | 4327 |
| | '39 | 32 | | 2 | 150 | 8 | 401 | 12 | 18 | 110 | 22 | 30 | 410 | 28 | 5 | 29 | 12 | 67 | 4 | 9 | 18 | 56 | 28 | 107 | 9 | 3208 |
| | '38 | 23 | 1 | 5 | 113 | 8 | 273 | 9 | 27 | 81 | 19 | 40 | 190 | 20 | 3 | 15 | 11 | 76 | 6 | 3 | 10 | 47 | 26 | 125 | 9 | 2424 |
| | '37 | 63 | 14 | 3 | 190 | 11 | 452 | 16 | 34 | 116 | 55 | 50 | 247 | 22 | 6 | 45 | 25 | 91 | 15 | 8 | 11 | 67 | 67 | 179 | 29 | 3924 |
| | '36 | 59 | 10 | 3 | 336 | 15 | 359 | 16 | 42 | 118 | 33 | 39 | 256 | 15 | 2 | 30 | 11 | 56 | 8 | 2 | 22 | 58 | 48 | 129 | 8 | 3386 |
| | '35 | 52 | 1 | 3 | 90 | | 256 | 9 | 38 | 57 | 21 | 34 | 55 | 8 | 5 | 23 | 7 | 27 | 2 | 5 | 8 | 38 | 20 | 77 | 7 | 1850 |
| | '34 | 42 | | 2 | 83 | 8 | 139 | 5 | 24 | 42 | 9 | 7 | 67 | 9 | 1 | 14 | 1 | 8 | 3 | 8 | 6 | 29 | 10 | 52 | 8 | 1290 |
| | Before '34 | 46 | | 1 | 182 | 17 | 227 | 5 | 19 | 32 | 9 | 5 | 94 | 10 | 2 | 16 | 7 | 11 | 1 | 4 | 7 | 25 | 10 | 142 | | 1960 |
| | Unid.* | 12 | | | 116 | 13 | 14 | 1 | 2 | | 2 | 1 | 18 | | | 5 | 9 | 3 | | | | | | 10 | 1 | 481 |
| | Total | 1523 | 76 | 95 | 3021 | 253 | 7636 | 570 | 550 | 2615 | 495 | 1085 | 5630 | 327 | 221 | 761 | 550 | 2034 | 271 | 140 | 659 | 1419 | 775 | 2277 | 378 | 67624 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# ● TOTAL REGISTRATIONS ●

## TRUCKS IN USE BY MAKES, STATES,

| Model | Yr. | Ala. | Ariz. | Ark. | Calif. | Colo. | Conn. | D.of. | D. C. | Fla. | Ga. | Idaho | Ill. | Ind. | Iowa | Kan. | Ky. | La. | Me. | Md. | Mass. | Mich. | Minn. | Miss. | Mo. | Mont. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIVCO | '50 | 14 | 2 | 2 | 193 | 35 | 88 | 6 | 40 | 38 | 10 | 2 | 114 | 82 | 42 | 12 | 12 | 8 | 6 | 35 | 115 | 130 | 38 | | 82 | |
| | '49 | 19 | 17 | | 462 | 13 | 98 | 10 | 64 | 64 | 21 | 3 | 224 | 116 | 24 | 26 | 49 | 20 | 4 | 60 | 172 | 260 | 50 | 1 | 49 | 11 |
| | '48 | 32 | 23 | | 406 | 37 | 169 | 19 | 75 | 86 | 5 | 15 | 326 | 173 | 48 | 21 | 72 | 27 | 40 | 118 | 495 | 348 | 90 | 1 | 77 | 16 |
| | '47 | 24 | 19 | | 330 | 58 | 127 | 25 | 115 | 50 | 5 | 10 | 468 | 152 | 86 | 24 | 40 | 29 | 30 | 152 | 444 | 398 | 82 | | 151 | 4 |
| | '46 | 19 | 13 | | 314 | 19 | 105 | 14 | 56 | 34 | 26 | 14 | 344 | 147 | 24 | 26 | 21 | 17 | 37 | 80 | 396 | 247 | 63 | | 165 | 1 |
| | '45 | 11 | 7 | | 132 | 12 | 54 | 7 | 21 | 1 | 6 | 2 | 124 | 64 | 9 | 6 | 9 | 8 | 5 | 40 | 141 | 185 | 11 | | 22 | |
| | '44 | | | | 48 | | 4 | 1 | | | 1 | | 18 | 14 | 1 | 4 | 7 | 4 | | 11 | 30 | 18 | 1 | | | |
| | '43 | | | | 39 | | | | | 2 | | | 2 | | | 2 | | | | 3 | 4 | 1 | | | | |
| | '42 | 5 | 5 | | 29 | | 9 | 2 | 25 | 45 | | | 25 | 57 | 5 | 14 | 2 | 3 | 7 | 14 | 41 | 25 | 3 | | 5 | |
| | '41 | 6 | 8 | | 130 | 10 | 111 | 9 | 22 | 8 | 1 | 2 | 160 | 57 | 13 | 12 | 28 | 5 | 31 | 54 | 371 | 257 | | | 88 | |
| | '40 | 9 | 2 | | 99 | 23 | 45 | 7 | 57 | 4 | 4 | | 119 | 48 | 10 | 3 | 13 | 6 | 9 | 41 | 123 | 117 | 19 | | 36 | |
| | '39 | 6 | 5 | | 71 | | 55 | 6 | 58 | 3 | 2 | | 114 | 42 | 9 | | 36 | 4 | 2 | 34 | 135 | 31 | 24 | | 43 | |
| | '38 | 1 | 7 | | 31 | | 31 | 3 | 30 | 2 | 6 | | 54 | 13 | 5 | | 4 | | 3 | 22 | 48 | 18 | 21 | | 27 | |
| | '37 | 1 | 2 | | 9 | | 57 | 2 | 8 | 10 | | 2 | 60 | 11 | 10 | 1 | 6 | 2 | 3 | 15 | 35 | 11 | 18 | 4 | 5 | |
| | '36 | | | | 16 | | 6 | 1 | 12 | | | | 77 | 10 | 2 | | 4 | 6 | 1 | 7 | 29 | 22 | 82 | | 2 | |
| | '35 | | | | 10 | | 3 | | 3 | 1 | | | 4 | 1 | 2 | | 6 | | | 2 | 7 | 8 | 51 | | 4 | |
| | '34 | | | | 6 | | 2 | | 1 | | | | 40 | 1 | | | 1 | | 2 | 1 | 2 | 12 | 6 | | | |
| | Before '34 | | | | 101 | | 1 | | 1 | | | | 26 | 2 | 2 | | 3 | | 1 | 5 | 9 | 11 | 14 | 1 | 5 | |
| | Unid.* | | | | | 5 | 1 | | 1 | | 1 | | 5 | 2 | | | 1 | | | 2 | 2 | 140 | | | 5 | |
| | Total | 147 | 110 | 2 | 2412 | 212 | 994 | 112 | 599 | 348 | 88 | 57 | 2294 | 992 | 292 | 155 | 314 | 140 | 181 | 696 | 2599 | 2235 | 573 | 7 | 736 | 32 |
| DODGE | '50 | 982 | 149 | 939 | 1572 | 547 | 391 | 112 | 104 | 1111 | 1038 | 189 | 3066 | 1208 | 1072 | 555 | 810 | 869 | 212 | 560 | 880 | 1818 | 733 | 723 | 1745 | 234 |
| | '49 | 2386 | 658 | 1973 | 6111 | 1359 | 1003 | 287 | 348 | 2479 | 2560 | 844 | 5709 | 3106 | 2678 | 2162 | 2283 | 2038 | 579 | 1438 | 1891 | 3729 | 2036 | 2112 | 2848 | 851 |
| | '48 | 1989 | 740 | 1644 | 9032 | 1426 | 999 | 315 | 374 | 2108 | 2448 | 795 | 5569 | 2719 | 2489 | 2188 | 1929 | 1768 | 632 | 1572 | 2184 | 4909 | 2374 | 1764 | 2859 | 866 |
| | '47 | 2201 | 675 | 1574 | 9364 | 1288 | 1142 | 375 | 452 | 2319 | 2553 | 784 | 5754 | 3107 | 2437 | 2121 | 2394 | 1715 | 946 | 1880 | 2753 | 4756 | 2203 | 1612 | 2689 | 947 |
| | '46 | 2389 | 617 | 1671 | 7144 | 1179 | 1314 | 313 | 293 | 2383 | 2788 | 707 | 5594 | 3207 | 2326 | 1728 | 2208 | 1837 | 920 | 1572 | 2592 | 4712 | 2564 | 1879 | 2667 | 817 |
| | '45 | 258 | 107 | 237 | 1998 | 193 | 226 | 53 | 49 | 376 | 314 | 118 | 862 | 557 | 394 | 394 | 403 | 285 | 150 | 268 | 408 | 671 | 351 | 174 | 598 | 178 |
| | '44 | 84 | 32 | 108 | 902 | 86 | 59 | 23 | 16 | 116 | 108 | 53 | 294 | 165 | 127 | 111 | 90 | 89 | 69 | 113 | 125 | 229 | 145 | 85 | 139 | 52 |
| | '43 | 16 | 12 | 20 | 719 | 17 | 3 | 2 | 2 | 34 | 39 | 32 | 35 | 19 | 9 | 21 | 31 | 23 | 12 | 12 | 14 | 18 | 18 | 38 | 49 | 16 |
| | '42 | 1055 | 430 | 901 | 2306 | 678 | 234 | 74 | 87 | 1065 | 1151 | 355 | 1230 | 829 | 538 | 681 | 847 | 938 | 296 | 366 | 646 | 1107 | 603 | 877 | 810 | 257 |
| | '41 | 1458 | 659 | 1023 | 7712 | 1158 | 1063 | 182 | 192 | 1704 | 1742 | 791 | 2634 | 1826 | 1089 | 1312 | 1190 | 991 | 553 | 913 | 1951 | 2381 | 1142 | 952 | 1646 | 673 |
| | '40 | 844 | 277 | 568 | 4766 | 594 | 602 | 126 | 106 | 910 | 998 | 374 | 2162 | 1377 | 840 | 750 | 803 | 588 | 344 | 633 | 1380 | 1668 | 894 | 523 | 1224 | 314 |
| | '39 | 503 | 181 | 432 | 3160 | 577 | 584 | 132 | 113 | 601 | 595 | 315 | 1763 | 1169 | 785 | 642 | 630 | 358 | 340 | 657 | 1227 | 1379 | 796 | 295 | 966 | 348 |
| | '38 | 304 | 129 | 246 | 2359 | 382 | 323 | 74 | 67 | 424 | 327 | 153 | 956 | 704 | 462 | 556 | 408 | 275 | 229 | 387 | 705 | 799 | 512 | 176 | 594 | 170 |
| | '37 | 446 | 285 | 396 | 4756 | 732 | 513 | 112 | 88 | 586 | 605 | 271 | 1499 | 1522 | 649 | 682 | 733 | 362 | 261 | 560 | 835 | 1373 | 838 | 281 | 863 | 252 |
| | '36 | 439 | 404 | 486 | 5715 | 916 | 664 | 122 | 66 | 749 | 551 | 488 | 1740 | 1790 | 865 | 1029 | 729 | 377 | 310 | 612 | 918 | 1632 | 1122 | 334 | 1184 | 421 |
| | '35 | 134 | 211 | 168 | 3542 | 374 | 440 | 57 | 38 | 302 | 173 | 307 | 651 | 1004 | 432 | 484 | 309 | 116 | 109 | 283 | 428 | 570 | 736 | 86 | 506 | 269 |
| | '34 | 111 | 78 | 122 | 1934 | 188 | 261 | 27 | 11 | 186 | 136 | 197 | 376 | 460 | 196 | 252 | 156 | 97 | 114 | 136 | 303 | 392 | 288 | 62 | 336 | 139 |
| | Before '34 | 70 | 95 | 196 | 3410 | 314 | 463 | 29 | 8 | 179 | 116 | 120 | 281 | 465 | 192 | 403 | 188 | 119 | 141 | 149 | 254 | 389 | 472 | 67 | 444 | 162 |
| | Unid.* | 47 | 20 | 106 | 5 | 22 | 2 | 20 | 120 | 68 | 162 | 25 | 226 | 19 | 9 | 14 | 45 | 286 | | 100 | 14 | 893 | 10 | 88 | 372 | 9 |
| | Total | 15729 | 5659 | 12792 | 76509 | 12029 | 10286 | 2435 | 2529 | 17711 | 18424 | 6898 | 40381 | 29257 | 17611 | 16088 | 15982 | 13131 | 6220 | 12191 | 19506 | 33416 | 17829 | 12119 | 22541 | 6973 |
| FEDERAL | '50 | 1 | | 2 | 13 | 5 | 36 | 1 | 1 | 1 | | 1 | 32 | 10 | 1 | 3 | | 6 | 11 | 18 | 17 | 21 | 3 | 2 | 5 | |
| | '49 | 11 | | 1 | 27 | 16 | 36 | 2 | 2 | 11 | 6 | 11 | 27 | 19 | 3 | 19 | 6 | 5 | 4 | 31 | 16 | 46 | 19 | 9 | 3 | 13 |
| | '48 | 40 | 11 | 23 | 54 | 67 | 67 | 4 | 17 | 43 | 30 | 26 | 221 | 64 | 27 | 121 | 76 | 32 | 43 | 66 | 51 | 121 | 143 | 20 | 33 | 56 |
| | '47 | 99 | 13 | 27 | 172 | 40 | 147 | 5 | 24 | 70 | 54 | 65 | 291 | 114 | 48 | 118 | 123 | 42 | 61 | 118 | 119 | 388 | 192 | 25 | 108 | 36 |
| | '46 | 77 | 16 | 33 | 191 | 10 | 110 | 3 | 7 | 101 | 72 | 25 | 156 | 71 | 48 | 50 | 41 | 47 | 34 | 77 | 96 | 222 | 84 | 37 | 99 | 1 |
| | '45 | 22 | 16 | 24 | 82 | 6 | 44 | 2 | 5 | 11 | 16 | 23 | 68 | 35 | 23 | 16 | 26 | 9 | 13 | 40 | 37 | 65 | 68 | 13 | 31 | |
| | '44 | 3 | 7 | 6 | 45 | 8 | 11 | | | 5 | 10 | 4 | 37 | 20 | 3 | 1 | 16 | 7 | 12 | 12 | 20 | 29 | 38 | 6 | 6 | 4 |
| | '43 | 7 | 6 | 1 | 55 | | 1 | | | 15 | 11 | 4 | 16 | 4 | 1 | 3 | 8 | 2 | | 2 | 3 | 5 | 1 | 4 | 2 | 1 |
| | '42 | 9 | 5 | 5 | 39 | 17 | 24 | | 4 | 31 | 22 | 2 | 58 | 10 | 5 | 10 | 12 | 14 | 3 | 10 | 22 | 34 | 22 | 9 | 10 | 1 |
| | '41 | 8 | 2 | 4 | 57 | 4 | 35 | 2 | 9 | 14 | 8 | 2 | 84 | 13 | 2 | 5 | 7 | 13 | 3 | 30 | 59 | 89 | 28 | 2 | 18 | 4 |
| | '40 | 6 | 3 | 1 | 56 | 3 | 45 | 2 | 5 | 41 | 9 | 4 | 54 | 9 | 1 | 1 | 17 | 1 | 6 | 19 | 54 | 47 | 24 | 5 | 15 | 1 |
| | '39 | 3 | 3 | 2 | 57 | | 27 | 2 | 4 | 9 | 1 | 2 | 15 | 10 | | | 9 | 2 | 6 | 21 | 46 | 46 | 25 | 1 | 11 | |
| | '38 | | | | 40 | 2 | 17 | 1 | | 7 | 7 | 3 | 51 | 3 | 2 | 2 | 6 | | 5 | 13 | 33 | 31 | 23 | | 12 | 4 |
| | '37 | 4 | 1 | 3 | 79 | 5 | 32 | 1 | | 8 | 1 | 3 | 83 | 12 | 4 | 9 | 4 | 2 | 3 | 11 | 49 | 58 | 35 | | 22 | 6 |
| | '36 | 3 | | 1 | 99 | 10 | 29 | 1 | 5 | 8 | 8 | 3 | 82 | 9 | 2 | 5 | 12 | 1 | 2 | 14 | 42 | 58 | 24 | 2 | 29 | 15 |
| | '35 | | 1 | | 42 | 3 | 26 | | | 4 | | 1 | 34 | 6 | 1 | 1 | 7 | 1 | 2 | 11 | 10 | 26 | 11 | | 12 | 13 |
| | '34 | 3 | 1 | | 48 | 4 | 19 | | | 1 | 2 | 1 | 26 | 2 | | 1 | 2 | | 2 | 5 | 14 | 16 | 16 | | 13 | |
| | Before '34 | 3 | 1 | 2 | 125 | 7 | 47 | | 1 | 11 | 2 | 3 | 30 | 7 | 6 | 1 | 8 | 2 | 1 | 14 | 34 | 29 | 29 | 4 | 41 | 3 |
| | Unid.* | 1 | | 1 | | 1 | | | 5 | | 2 | 2 | 5 | 1 | | | 4 | 10 | | 4 | 2 | 108 | 5 | 4 | 8 | |
| | Total | 280 | 86 | 138 | 1290 | 228 | 778 | 26 | 89 | 391 | 261 | 167 | 1330 | 418 | 173 | 366 | 386 | 196 | 211 | 517 | 724 | 1425 | 783 | 142 | 477 | 160 |
| FORD | '50 | 3792 | 653 | 3079 | 7284 | 2354 | 1576 | 437 | 441 | 3684 | 4507 | 880 | 9285 | 5552 | 3833 | 2743 | 2058 | 3096 | 663 | 1474 | 2697 | 8196 | 3524 | 2635 | 7068 | 817 |
| | '49 | 4961 | 1389 | 8081 | 10087 | 2587 | 1493 | 649 | 545 | 4377 | 6390 | 1408 | 8572 | 5482 | 5042 | 4410 | 4821 | 6212 | 1039 | 2198 | 3255 | 7832 | 4155 | 4724 | 5148 | 1740 |
| | '48 | 4229 | 1447 | 4517 | 13393 | 3165 | 2146 | 812 | 798 | 4459 | 5617 | 1624 | 10194 | 5684 | 5239 | 5372 | 4813 | 4874 | 1829 | 2745 | 5053 | 9083 | 6230 | 4375 | 5985 | 2004 |
| | '47 | 3496 | 969 | 3187 | 13099 | 2661 | 1416 | 563 | 662 | 3804 | 4385 | 1290 | 7716 | 4214 | 3932 | 4290 | 3744 | 3235 | 1474 | 1866 | 3771 | 6227 | 3923 | 2966 | 4744 | 1322 |
| | '46 | 4710 | 1016 | 4378 | 9949 | 2257 | 1275 | 514 | 418 | 4354 | 5353 | 1125 | 6946 | 3307 | 3270 | 3136 | 4218 | 4252 | 1742 | 3373 | 6424 | 10357 | 4454 | 3934 | 5169 | |
| | '45 | 638 | 236 | 676 | 3074 | 499 | 370 | 97 | 165 | 901 | 1086 | 251 | 1543 | 1430 | 951 | 791 | 902 | 686 | 476 | 336 | 902 | 1836 | 1057 | 546 | 966 | 275 |
| | '44 | 282 | 138 | 274 | 1179 | 284 | 125 | 37 | 33 | 382 | 557 | 149 | 691 | 388 | 384 | 318 | 443 | 356 | 265 | 126 | 381 | 566 | 485 | 424 | 342 | 137 |
| | '43 | 86 | 106 | 124 | 1960 | 128 | 22 | 12 | 11 | 172 | 270 | 116 | 107 | 81 | 61 | 127 | 96 | 93 | 60 | 42 | 204 | 97 | 44 | 60 | 119 | 69 |
| | '42 | 2441 | 567 | 1632 | 3446 | 1260 | 435 | 213 | 228 | 2164 | 3481 | 567 | 1853 | 1203 | 1098 | 1489 | 948 | 2163 | 640 | 730 | 1150 | 1938 | 1376 | 2385 | 1322 | 680 |
| | '41 | 3585 | 980 | 3780 | 11688 | 2167 | 1575 | 459 | 345 | 3816 | 4698 | 1193 | 5652 | 3647 | 3397 | 3975 | 2635 | 3168 | 1429 | 1553 | 3510 | 5878 | 3892 | 3223 | 4094 | 1297 |
| | '40 | 2486 | 607 | 2537 | 9117 | 1668 | 1159 | 324 | 294 | 2754 | 3239 | 926 | 4637 | 2716 | 2733 | 2504 | 1693 | 2559 | 1023 | 1097 | 2527 | 3986 | 2954 | 2579 | 3213 | 1004 |
| | '39 | 1613 | 482 | 1837 | 6353 | 1381 | 911 | 220 | 190 | 1874 | 2087 | 706 | 3202 | 2073 | 2320 | 1875 | 1422 | 1721 | 851 | 748 | 2059 | 2849 | 2140 | 1458 | 2239 | 787 |
| | '38 | 900 | 404 | 1147 | 4909 | 1142 | 650 | 171 | 102 | 1476 | 1299 | 576 | 2288 | 1483 | 1555 | 2141 | 1054 | 1232 | 692 | 581 | 1298 | 1794 | 1971 | 1018 | 1629 | 775 |
| | '37 | 1634 | 643 | 2269 | 8983 | 1930 | 1338 | 307 | 142 | 2439 | 2326 | 944 | 3720 | 3198 | 2389 | 3361 | 1875 | 1716 | 1017 | 1037 | 2561 | 4348 | 3399 | 1737 | 3052 | 991 |
| | '36 | 1364 | 644 | 1852 | 9058 | 1992 | 1509 | 293 | 165 | 2372 | 2237 | 1000 | 3640 | 3112 | 2171 | 2844 | 1463 | 1642 | 912 | 995 | 2647 | 4130 | 3114 | 1385 | 2880 | 1073 |
| | '35 | 665 | 507 | 1003 | 9175 | 1316 | 1158 | 202 | 86 | 1538 | 1252 | 719 | 2424 | 2773 | 1799 | 2335 | 920 | 705 | 649 | 686 | 1729 | 2619 | 2627 | 690 | 1965 | 870 |
| | '34 | 440 | 381 | 701 | 6186 | 906 | 1020 | 147 | 56 | 1179 | 901 | 494 | 1298 | 1309 | 1132 | 1465 | 573 | 594 | 626 | 496 | 1327 | 1965 | 1490 | 511 | 1209 | 567 |
| | Before '34 | 1778 | 1942 | 3725 | 36582 | 4396 | 4371 | 533 | 168 | 9176 | 5456 | 1515 | 4895 | 6851 | 3937 | 7803 | 2399 | 3390 | 2106 | 1804 | 3121 | 6820 | 9193 | 2445 | 6843 | 1992 |
| | Unid.* | 100 | 22 | 225 | 16 | 21 | 21 | 140 | 415 | 289 | 680 | 28 | 294 | 50 | 21 | 66 | 69 | 874 | 4 | 477 | 53 | 2203 | 229 | 253 | 1130 | 5 |
| | Total | 39202 | 13129 | 42124 | 166518 | 32116 | 22571 | 6120 | 5262 | 51170 | 56723 | 15506 | 78955 | 54708 | 45536 | 51179 | 35065 | 42336 | 17007 | 20733 | 41586 | 78593 | 54160 | 37948 | 57944 | 17564 |
| F.W.D. | '50 | | | | 12 | 1 | 3 | | | | 1 | 1 | 4 | | | 2 | | 3 | | | | | 2 | | | 1 |
| | '49 | | | | 10 | 12 | 3 | 1 | | | | 3 | 11 | 2 | 1 | 3 | | 1 | | | 9 | 4 | 1 | | | |
| | '48 | 1 | | | 21 | 29 | 7 | 2 | | | | | 40 | 2 | 8 | 8 | | 14 | | | 20 | 6 | 30 | 1 | 1 | 5 |
| | '47 | 1 | 11 | 1 | 138 | 69 | 18 | 13 | | 7 | 1 | 13 | 20 | 1 | 17 | 3 | 1 | 1 | 3 | 3 | 19 | 4 | 31 | 1 | 6 | 14 |
| | '46 | 1 | 1 | 5 | 55 | 39 | 7 | 5 | | 10 | | 7 | 11 | 5 | 12 | 5 | 1 | 6 | 10 | | 19 | 2 | 41 | 1 | | 5 |
| | '45 | 1 | 1 | | 20 | 5 | 1 | 1 | | | 1 | 10 | 5 | 2 | 9 | 3 | 2 | 4 | 7 | | 6 | 2 | 12 | 1 | | 12 |
| | '44 | | | | 21 | 4 | | | | 1 | | 3 | 1 | | 3 | 15 | | 2 | 3 | | 3 | | 3 | 1 | | 1 |
| | '43 | | | | 6 | | | | | | | | 4 | | | | | | | | 1 | | 1 | | | 2 |
| | '42 | | 9 | | 26 | 3 | | | | | | 2 | 2 | 2 | 8 | | 6 | 2 | | | 4 | 2 | 4 | 2 | | |
| | '41 | | 1 | | 14 | 18 | 3 | 2 | | | | 3 | 9 | 1 | 2 | 11 | | 4 | 4 | | 4 | 1 | 14 | | 1 | 15 |
| | '40 | | | | 16 | 2 | 2 | | | | | 1 | 3 | | 2 | 4 | 2 | 19 | 2 | | 3 | | 1 | 1 | 6 | |
| | '39 | | | | 10 | 2 | | 1 | | | | 3 | 4 | | 1 | 6 | 2 | | | | 4 | 2 | 10 | | | 10 |
| | '38 | | | | 16 | 4 | | | | | | 1 | 2 | | 4 | 1 | | | 1 | | 14 | 1 | 6 | | | 10 |
| | '37 | | 1 | | 20 | 8 | 1 | 1 | | | | 1 | 1 | | 5 | 11 | | | | | | | 19 | | 1 | 11 |
| | '36 | | 1 | | 10 | 5 | | | | | | 1 | 8 | 2 | 14 | 4 | | | 1 | | 13 | | 29 | | 6 | 6 |
| | '35 | | 1 | | 7 | | 1 | | | | | 3 | | 1 | 1 | 2 | | 1 | 2 | | 15 | 1 | 14 | | | |
| | '34 | | | | 11 | 1 | | | | | 1 | 1 | | | | | | | 1 | | 3 | | 9 | | | 5 |
| | Before '34 | | 2 | | 18 | 9 | 3 | 1 | | | | 2 | 4 | 2 | 5 | 2 | | | 4 | | 7 | 1 | 29 | | 7 | 27 |
| | Unid.* | | 3 | | 3 | | 1 | | | | | | 3 | | 1 | | | | | | 1 | | 1 | | 1 | |
| | Total | 3 | 31 | 6 | 431 | 211 | 49 | 28 | | 19 | 4 | 55 | 131 | 18 | 94 | 83 | 6 | 57 | 40 | 3 | 146 | 24 | 258 | 8 | 29 | 124 |

Unid* — Unidentified as to model year.

Data from Reuben H. Donnelley Corp. are as of July 1, 1950.

# ● TOTAL REGISTRATIONS ●

## AND MODEL YEAR—continued

| Model | Yr. | Neb. | Nev. | N.H. | N. J. | N.M. | N. Y. | N. C. | N. D. | Ohio | Okla. | Ore. | Pa. | R. I. | S. C. | S. D | Tenn. | Tex. | Utah | Vt. | Va. | Wash. | W.Va. | Wis. | Wyo. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIVCO | '50 | 6 | | 7 | 106 | | 138 | 18 | 1 | 175 | 33 | 17 | 153 | 24 | 10 | 2 | 12 | 38 | 8 | 2 | 2 | 47 | 13 | 88 | 1 | 1967 |
| | '49 | 1 | 2 | 10 | 169 | 2 | 348 | 45 | 3 | 329 | 43 | 19 | 223 | 40 | 15 | 4 | 20 | 129 | 5 | 6 | 53 | 43 | 28 | 94 | | 3468 |
| | '48 | 3 | | 40 | 352 | | 624 | 53 | 1 | 430 | 49 | 23 | 548 | 101 | 5 | 5 | 32 | 153 | 17 | 11 | 80 | 130 | 44 | 139 | 2 | 5761 |
| | '47 | 16 | 5 | 24 | 386 | | 608 | 34 | 7 | 404 | 43 | 44 | 800 | 94 | 1 | 3 | 17 | 159 | 21 | 8 | 76 | 101 | 58 | 153 | 6 | 5098 |
| | '46 | 13 | 3 | 12 | 239 | | 329 | 43 | 9 | 295 | 46 | 44 | 364 | 88 | 13 | 10 | 45 | 77 | 23 | 6 | 98 | 78 | 54 | 101 | 5 | 4175 |
| | '45 | 2 | 4 | 7 | 111 | | 124 | 9 | 1 | 131 | 11 | 11 | 236 | 29 | 1 | 4 | 4 | 88 | 9 | 2 | 33 | 32 | 22 | 19 | 2 | 1752 |
| | '44 | 1 | | | 9 | | 5 | 1 | | 10 | 2 | 11 | 92 | 1 | | | | | | | 16 | | 2 | | | 307 |
| | '43 | | | | 26 | | 9 | | | 1 | | | 6 | | | | | | | 1 | 2 | | | | | 94 |
| | '42 | 4 | | 2 | 36 | | 4 | 17 | | 38 | 7 | 14 | 33 | 17 | 3 | 2 | 4 | 7 | | 1 | 22 | 7 | 7 | 12 | | 591 |
| | '41 | | | 13 | 201 | | 197 | 27 | 1 | 199 | 14 | 18 | 251 | 48 | 9 | | 20 | 31 | 2 | | 54 | 71 | 26 | 23 | | 2576 |
| | '40 | 5 | | 3 | 173 | | 296 | 18 | | 114 | 6 | 7 | 117 | 61 | 5 | 3 | 14 | 11 | 1 | 1 | 31 | 22 | 18 | 7 | | 1697 |
| | '39 | 3 | | 2 | 95 | | 184 | 18 | | 122 | 7 | 3 | 132 | 31 | 2 | 2 | 12 | 32 | 7 | | 22 | 35 | 12 | 24 | | 1455 |
| | '38 | 1 | | 7 | 66 | | 278 | 23 | | 65 | | | 97 | 12 | 5 | | 7 | 17 | 1 | | 28 | 15 | 11 | 10 | | 967 |
| | '37 | | 2 | 1 | 38 | | 90 | 12 | | 27 | 13 | | 66 | 7 | 1 | | 5 | 21 | | | 4 | 5 | 5 | 20 | | 599 |
| | '36 | | | 2 | 39 | | 40 | 11 | 2 | 42 | | | 25 | | | 1 | 6 | 5 | | | 5 | | 3 | 4 | | 453 |
| | '35 | | | | 5 | | 21 | 2 | | 1 | | | 7 | 2 | | 1 | 7 | | | | 5 | | | 4 | | 157 |
| | '34 | | | 1 | | | 6 | 3 | | 9 | | 5 | 4 | 1 | | | 4 | | | | 5 | | | 1 | | 113 |
| | Before '34 | | | | 7 | | 8 | | | 17 | | | 5 | | | | 9 | 1 | | | 1 | 2 | | 2 | | 234 |
| | Unid.* | 1 | | | 18 | | | | | | 1 | | 4 | 1 | 1 | | | 6 | | | | | | 1 | | 198 |
| | Total | 56 | 16 | 131 | 2096 | 2 | 3542 | 334 | 24 | 2406 | 275 | 216 | 3163 | 557 | 71 | 38 | 218 | 755 | 94 | 30 | 556 | 594 | 300 | 672 | 16 | 32487 |
| DODGE | '50 | 377 | 79 | 186 | 1104 | 367 | 2161 | 876 | 155 | 2193 | 877 | 479 | 2737 | 172 | 462 | 286 | 1303 | 2926 | 204 | 156 | 451 | 956 | 373 | 1268 | 180 | 41948 |
| | '49 | 1290 | 230 | 426 | 2830 | 750 | 6630 | 3065 | 676 | 5290 | 2792 | 1612 | 9220 | 370 | 1498 | 771 | 2811 | 9166 | 566 | 310 | 2436 | 1949 | 1368 | 2014 | 472 | 108830 |
| | '48 | 1385 | 235 | 343 | 2647 | 529 | 7719 | 3076 | 921 | 5623 | 2075 | 2034 | 7448 | 420 | 1332 | 1048 | 2068 | 7285 | 519 | 276 | 2136 | 2164 | 1714 | 2172 | 504 | 111363 |
| | '47 | 1418 | 234 | 450 | 3179 | 585 | 8003 | 3310 | 846 | 6212 | 2801 | 1933 | 8660 | 459 | 1535 | 1130 | 2379 | 8209 | 556 | 442 | 2651 | 2080 | 2052 | 2292 | 471 | 119708 |
| | '46 | 1156 | 226 | 403 | 2743 | 539 | 7642 | 3047 | 762 | 5937 | 2220 | 1672 | 7441 | 502 | 1522 | 902 | 2544 | 7426 | 458 | 424 | 2030 | 2008 | 1673 | 2162 | 398 | 111345 |
| | '45 | 245 | 41 | 76 | 452 | 92 | 1111 | 435 | 181 | 965 | 657 | 267 | 1378 | 92 | 239 | 183 | 243 | 1445 | 61 | 80 | 540 | 292 | 318 | 368 | 74 | 19499 |
| | '44 | 78 | 16 | 13 | 124 | 38 | 382 | 143 | 75 | 295 | 200 | 92 | 674 | 19 | 83 | 62 | 97 | 428 | 24 | 26 | 134 | 148 | 117 | 142 | 41 | 6875 |
| | '43 | 1 | 7 | 7 | 28 | 25 | 70 | 13 | 18 | 28 | 75 | 76 | 77 | | 8 | 3 | 38 | 98 | 3 | 7 | 13 | 106 | 28 | 24 | 3 | 1971 |
| | '42 | 376 | 99 | 89 | 853 | 291 | 1958 | 1107 | 346 | 1475 | 1172 | 970 | 1156 | 112 | 725 | 292 | 1206 | 3843 | 276 | 123 | 634 | 1631 | 652 | 512 | 172 | 38027 |
| | '41 | 607 | 201 | 264 | 1981 | 464 | 4256 | 1921 | 491 | 3323 | 1817 | 1596 | 3721 | 315 | 1145 | 446 | 1357 | 5199 | 447 | 293 | 1850 | 1989 | 1255 | 1206 | 317 | 73394 |
| | '40 | 330 | 124 | 229 | 1306 | 209 | 2908 | 1403 | 381 | 2434 | 981 | 730 | 2705 | 197 | 594 | 314 | 764 | 2379 | 247 | 228 | 1012 | 988 | 818 | 982 | 153 | 46072 |
| | '39 | 342 | 79 | 219 | 1370 | 173 | 2938 | 970 | 254 | 2053 | 664 | 571 | 3187 | 240 | 386 | 294 | 546 | 1790 | 222 | 154 | 743 | 812 | 668 | 855 | 156 | 38264 |
| | '38 | 231 | 47 | 103 | 929 | 101 | 2095 | 417 | 167 | 1207 | 507 | 306 | 1846 | 83 | 203 | 175 | 386 | 1057 | 84 | 85 | 422 | 432 | 421 | 524 | 84 | 23690 |
| | '37 | 306 | 101 | 168 | 1233 | 160 | 2278 | 641 | 278 | 2259 | 786 | 826 | 2859 | 180 | 370 | 236 | 641 | 1533 | 172 | 162 | 625 | 1013 | 633 | 987 | 161 | 38116 |
| | '36 | 529 | 132 | 181 | 1483 | 192 | 2758 | 747 | 306 | 2399 | 890 | 1185 | 2943 | 192 | 333 | 350 | 718 | 1899 | 357 | 139 | 636 | 1453 | 880 | 1382 | 181 | 45679 |
| | '35 | 274 | 65 | 87 | 988 | 81 | 1956 | 391 | 221 | 1067 | 431 | 804 | 1369 | 109 | 148 | 193 | 247 | 840 | 147 | 60 | 360 | 729 | 352 | 683 | 101 | 21680 |
| | '34 | 131 | 34 | 72 | 333 | 28 | 886 | 201 | 125 | 627 | 234 | 290 | 644 | 63 | 99 | 86 | 148 | 276 | 70 | 52 | 140 | 450 | 262 | 320 | 61 | 12184 |
| | Before '34 | 227 | 73 | 57 | 379 | 30 | 946 | 92 | 186 | 547 | 222 | 353 | 802 | 79 | 94 | 175 | 119 | 346 | 51 | 36 | 155 | 540 | 186 | 478 | 76 | 14975 |
| | Unid.* | 14 | | 4 | 617 | 27 | 38 | 18 | 24 | 36 | 52 | 6 | 172 | 12 | 15 | 15 | 172 | 62 | 3 | | 15 | 1 | 3 | 41 | 4 | 4035 |
| | Total | 9325 | 2012 | 3377 | 24159 | 4681 | 58064 | 21813 | 6413 | 43990 | 19273 | 15612 | 56039 | 3816 | 10775 | 6957 | 17589 | 55408 | 4467 | 3053 | 17045 | 19810 | 13970 | 18412 | 3809 | 977714 |
| FEDERAL | '50 | 2 | 1 | 1 | 51 | 1 | 83 | 11 | | 73 | | 2 | 80 | 1 | 1 | | 12 | 15 | 2 | | 10 | | 6 | 6 | | 548 |
| | '49 | 1 | | 5 | 75 | 1 | 137 | 33 | 16 | 97 | 2 | 15 | 93 | 1 | 2 | 3 | 26 | 11 | 3 | 3 | 16 | 5 | 8 | 14 | 2 | 915 |
| | '48 | 31 | 2 | 4 | 138 | 6 | 380 | 43 | 56 | 202 | 15 | 75 | 286 | 7 | 15 | 39 | 71 | 38 | 24 | 11 | 70 | 24 | 137 | 64 | 6 | 3243 |
| | '47 | 82 | 3 | 10 | 205 | 17 | 435 | 131 | 46 | 418 | 43 | 138 | 425 | 21 | 35 | 46 | 145 | 84 | 28 | 18 | 152 | 34 | 182 | 114 | 10 | 5284 |
| | '46 | 30 | | 15 | 192 | 13 | 401 | 78 | 4 | 303 | 32 | 101 | 277 | 7 | 24 | 8 | 108 | 68 | 25 | 16 | 78 | 47 | 103 | 74 | 6 | 3736 |
| | '45 | 13 | 4 | 6 | 132 | 2 | 243 | 15 | 1 | 137 | 36 | 104 | 126 | 1 | 3 | 1 | 27 | 24 | 11 | | 42 | 17 | 35 | 47 | 1 | 1728 |
| | '44 | 1 | 1 | | 47 | 6 | 113 | 10 | 1 | 47 | 6 | 53 | 51 | 3 | 4 | 2 | 19 | 9 | 6 | | 10 | 12 | 14 | 19 | 1 | 739 |
| | '43 | 1 | 1 | 1 | 7 | 2 | 9 | 5 | | 10 | 3 | 20 | 18 | | 8 | | 18 | 13 | | | 3 | 20 | 8 | 2 | 1 | 301 |
| | '42 | 5 | | | 52 | | 62 | 6 | | 42 | 19 | 58 | 20 | 3 | 4 | 2 | 29 | 19 | 4 | 1 | 14 | 25 | 12 | 7 | | 762 |
| | '41 | 2 | 1 | 3 | 88 | | 115 | 3 | 1 | 61 | 24 | 72 | 64 | 4 | 1 | 3 | 41 | 9 | 2 | | 17 | 17 | 7 | 10 | | 1027 |
| | '40 | 2 | | 8 | 66 | | 109 | 3 | 1 | 52 | 10 | 36 | 35 | 17 | 2 | | 28 | 4 | 1 | 2 | 7 | 7 | 14 | 5 | | 839 |
| | '39 | | | 9 | 59 | | 72 | 8 | | 43 | 3 | 21 | 59 | 8 | 1 | | 27 | 7 | 1 | 2 | 8 | 5 | 2 | 10 | 1 | 649 |
| | '38 | 3 | | 1 | 50 | 6 | 45 | 2 | | 27 | 1 | 17 | 48 | 12 | 5 | | 15 | 1 | 3 | 1 | 2 | 6 | 7 | 9 | | 525 |
| | '37 | 5 | | | 52 | 1 | 70 | 2 | 1 | 33 | 9 | 26 | 26 | 6 | 3 | | 16 | 5 | | | 1 | 16 | 9 | 13 | | 715 |
| | '36 | 6 | | 1 | 42 | 1 | 98 | 3 | 1 | 31 | 7 | 50 | 39 | 17 | 1 | 2 | 17 | 4 | 1 | 1 | 1 | 14 | 9 | 17 | | 806 |
| | '35 | 5 | | | 66 | 1 | 41 | 1 | 1 | 5 | 4 | 29 | 11 | 16 | | 2 | 17 | 1 | 1 | 1 | 1 | 11 | 2 | 15 | | 443 |
| | '34 | 4 | | | 20 | | 46 | | | 12 | 2 | 29 | 14 | 12 | | 1 | 5 | 1 | 1 | 1 | 4 | 38 | | 10 | | 376 |
| | Before '34 | 3 | | 2 | 51 | 2 | 66 | | 2 | 27 | 4 | 41 | 33 | 28 | 5 | 2 | 10 | 8 | | 1 | 4 | 15 | 4 | 23 | | 747 |
| | Unid.* | 1 | | | 40 | 5 | 6 | 1 | | 3 | 1 | 3 | 7 | 1 | | 1 | 12 | 1 | | | 1 | | | | | 242 |
| | Total | 197 | 13 | 72 | 1435 | 66 | 2530 | 355 | 131 | 1623 | 221 | 869 | 1712 | 166 | 114 | 112 | 643 | 341 | 113 | 58 | 441 | 313 | 559 | 455 | 28 | 23623 |
| FORD | '50 | 3092 | 244 | 562 | 3852 | 1486 | 5021 | 4347 | 583 | 8729 | 3727 | 1702 | 6408 | 370 | 1850 | 1119 | 3852 | 13993 | 746 | 275 | 2865 | 2924 | 1374 | 4940 | 589 | 156631 |
| | '49 | 2865 | 403 | 719 | 4856 | 995 | 8114 | 6824 | 1975 | 7975 | 5069 | 2353 | 10226 | 605 | 2969 | 1481 | 5087 | 17955 | 993 | 506 | 4288 | 2940 | 2028 | 4104 | 819 | 199326 |
| | '48 | 3269 | 415 | 872 | 4838 | 1054 | 10503 | 7306 | 2460 | 10593 | 5921 | 3177 | 12590 | 786 | 3267 | 1795 | 4512 | 17671 | 1168 | 712 | 5772 | 3749 | 3576 | 4956 | 974 | 226521 |
| | '47 | 2314 | 296 | 633 | 4039 | 733 | 8255 | 5349 | 1624 | 7673 | 4210 | 2148 | 9655 | 586 | 2568 | 1488 | 3594 | 12603 | 953 | 591 | 4570 | 3262 | 2707 | 3358 | 710 | 171963 |
| | '46 | 1978 | 289 | 631 | 3672 | 738 | 7662 | 5161 | 1262 | 8852 | 3876 | 2151 | 8182 | 575 | 2930 | 979 | 4106 | 14089 | 786 | 569 | 3319 | 2950 | 2235 | 3434 | 671 | 164608 |
| | '45 | 645 | 51 | 154 | 948 | 157 | 2179 | 1390 | 309 | 2349 | 1590 | 480 | 840 | 139 | 650 | 309 | 530 | 3764 | 144 | 144 | 1196 | 960 | 536 | 679 | 168 | 41679 |
| | '44 | 270 | 24 | 70 | 471 | 54 | 823 | 576 | 149 | 897 | 544 | 210 | 283 | 50 | 357 | 157 | 237 | 1533 | 83 | 74 | 352 | 318 | 204 | 494 | 55 | 16583 |
| | '43 | 58 | 58 | 29 | 239 | 25 | 134 | 214 | 37 | 109 | 348 | 233 | 143 | 10 | 116 | 44 | 79 | 693 | 118 | 9 | 63 | 202 | 103 | 80 | 28 | 7421 |
| | '42 | 914 | 215 | 172 | 1176 | 436 | 1977 | 2402 | 716 | 1914 | 2343 | 1368 | 3682 | 217 | 1475 | 525 | 1464 | 7155 | 520 | 153 | 994 | 1620 | 928 | 1152 | 341 | 68236 |
| | '41 | 2187 | 329 | 612 | 3512 | 779 | 6786 | 4522 | 1667 | 6419 | 4517 | 2383 | 7096 | 727 | 2596 | 1219 | 3315 | 13661 | 862 | 534 | 3167 | 2983 | 2268 | 3384 | 610 | 157769 |
| | '40 | 1663 | 225 | 508 | 2433 | 807 | 5039 | 2881 | 1225 | 4511 | 3502 | 1609 | 5292 | 545 | 1819 | 948 | 2049 | 9314 | 671 | 400 | 2435 | 1828 | 1772 | 2556 | 479 | 114947 |
| | '39 | 1262 | 191 | 428 | 1758 | 403 | 3664 | 2008 | 923 | 3097 | 2722 | 1096 | 3369 | 478 | 1295 | 745 | 1585 | 6867 | 503 | 356 | 1824 | 1374 | 1228 | 1819 | 381 | 82766 |
| | '38 | 1036 | 118 | 291 | 1604 | 333 | 2849 | 1572 | 986 | 2194 | 2389 | 868 | 2610 | 289 | 836 | 633 | 983 | 4943 | 341 | 200 | 1220 | 1011 | 743 | 1633 | 288 | 62198 |
| | '37 | 1519 | 239 | 586 | 2675 | 547 | 5399 | 2411 | 1163 | 4396 | 3364 | 1921 | 5060 | 603 | 1487 | 862 | 1535 | 7552 | 644 | 396 | 1900 | 2288 | 1745 | 3147 | 447 | 109633 |
| | '36 | 1712 | 299 | 521 | 2792 | 455 | 5632 | 1783 | 1042 | 4367 | 2957 | 1847 | 5148 | 485 | 1332 | 875 | 1496 | 6012 | 645 | 380 | 1548 | 2703 | 1567 | 2399 | 490 | 103509 |
| | '35 | 1202 | 193 | 394 | 1977 | 286 | 4071 | 1379 | 1042 | 3034 | 2219 | 1283 | 3299 | 356 | 836 | 820 | 845 | 3653 | 439 | 270 | 1406 | 1857 | 939 | 2551 | 320 | 75083 |
| | '34 | 854 | 161 | 319 | 1503 | 193 | 2935 | 845 | 682 | 2150 | 1338 | 797 | 2570 | 305 | 564 | 461 | 532 | 2233 | 284 | 206 | 749 | 1185 | 701 | 1274 | 242 | 50035 |
| | Before '34 | 5594 | 733 | 1491 | 4901 | 656 | 11806 | 3917 | 2943 | 8432 | 4986 | 4086 | 8647 | 1147 | 3640 | 3166 | 2575 | 12790 | 1155 | 631 | 2965 | 5885 | 2553 | 10083 | 916 | 239123 |
| | Unid.* | 60 | 2 | | 4083 | 34 | 82 | 62 | 132 | 40 | 139 | | 369 | 37 | 56 | 42 | 307 | 287 | 3 | 1 | 24 | 3 | 16 | 109 | 11 | 13585 |
| | Total | 32494 | 4445 | 8962 | 51127 | 9971 | 92731 | 50063 | 20830 | 85133 | 56761 | 29714 | 94449 | 8310 | 30845 | 17669 | 39483 | 156568 | 10956 | 6607 | 40556 | 39740 | 27228 | 52520 | 6837 | 2061330 |
| F.W.D. | '50 | | | | 1 | | 16 | | | 2 | 1 | | 10 | | 2 | | 1 | | | | 1 | 2 | 11 | 1 | 79 |
| | '49 | 1 | 1 | | 9 | | 45 | | | 15 | 3 | 4 | 7 | | 3 | 6 | 3 | 5 | 1 | | 2 | 30 | 16 | 3 | 215 |
| | '48 | 4 | 4 | 1 | 16 | | 82 | 1 | 7 | 2 | 8 | 6 | 34 | | | 8 | 1 | 27 | 5 | | 6 | 3 | 9 | 42 | 5 | 460 |
| | '47 | 7 | 11 | | 10 | | 134 | 182 | 4 | 23 | 7 | 30 | 91 | | 23 | 12 | 3 | 15 | 4 | 1 | 1 | 17 | 77 | 106 | 2 | 1132 |
| | '46 | 4 | 1 | | 11 | 1 | 128 | 5 | 11 | 23 | 7 | 10 | 84 | 1 | 1 | 21 | 4 | 5 | 9 | 3 | 2 | 18 | 40 | 67 | 2 | 729 |
| | '45 | | | | 6 | 1 | 108 | | 1 | 5 | 18 | 6 | 10 | 3 | | 8 | | 6 | 12 | 3 | | 7 | 4 | 30 | 4 | 333 |
| | '44 | | | | | | 5 | | 2 | 2 | 19 | 4 | 1 | | | 4 | | 10 | 1 | | | 4 | | 24 | 2 | 139 |
| | '43 | | | | | | 5 | | | 1 | | | | 1 | | | | | 2 | | | 2 | | 3 | | 20 |
| | '42 | 2 | | | | | 13 | | 1 | 3 | 1 | 12 | 12 | | | 1 | | | 2 | 1 | 2 | 6 | 11 | 27 | 1 | 166 |
| | '41 | 2 | | | 3 | 1 | 40 | | | 4 | 4 | 4 | 27 | | | 1 | | 48 | 9 | | | 2 | 23 | 40 | 2 | 317 |
| | '40 | 3 | 1 | | 3 | 1 | 37 | | | 2 | 8 | 6 | 1 | | | 1 | | 1 | | | | 2 | 8 | 28 | 1 | 163 |
| | '39 | | | | 1 | | 33 | | | 2 | 1 | 93 | 3 | | | 2 | | | 2 | 1 | 1 | 1 | 11 | 43 | | 345 |
| | '38 | 3 | 2 | | 4 | | 21 | | 2 | 3 | 9 | 4 | | | | 1 | 3 | | | | | 2 | 4 | 29 | | 147 |
| | '37 | 2 | 4 | | 2 | | 19 | | | 1 | 6 | | 19 | | | 3 | 9 | 2 | | | 34 | 9 | 32 | 4 | 222 |
| | '36 | | 3 | | 9 | | 27 | | 2 | 4 | 3 | 1 | 2 | 1 | | | 6 | | 1 | | 1 | 2 | 47 | 2 | 211 |
| | '35 | 1 | | 1 | 1 | | 16 | 2 | 3 | | 1 | 1 | 1 | | | | | | | | 9 | | 42 | | 128 |
| | '34 | | 1 | | | | 13 | | | 1 | | | 1 | | | | 1 | | 1 | | 5 | 3 | 11 | 1 | 99 |
| | Before '34 | 7 | 6 | 1 | 3 | | 36 | 2 | 3 | | 1 | 6 | 12 | | | 8 | 4 | | | | 17 | 4 | 61 | 1 | 295 |
| | Unid.* | 1 | | | 1 | | 2 | 1 | | | | 1 | | 1 | 1 | | 1 | | | | | | 1 | | 34 |
| | Total | 37 | 33 | 3 | 80 | 4 | 780 | 173 | 36 | 93 | 92 | 186 | 314 | 6 | 32 | 73 | 8 | 144 | 53 | 12 | 11 | 133 | 233 | 668 | 31 | 5112 |

Unid*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# ● TOTAL REGISTRATIONS ●

## TRUCKS IN USE BY MAKES, STATES,

| Model | Yr. | Ala. | Ariz. | Ark. | Calif. | Colo. | Conn. | Del. | D. C. | Fla. | Ga. | Idaho | Ill. | Ind. | Iowa | Kan. | Ky. | La. | Me. | Md. | Mass. | Mich. | Minn. | Miss. | Mo. | Mont. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G.M.C. | '50 | 1152 | 298 | 933 | 2441 | 632 | 505 | 167 | 175 | 856 | 1030 | 531 | 2737 | 1281 | 763 | 905 | 781 | 1074 | 330 | 538 | 710 | 1769 | 633 | 1067 | 2709 | 350 |
| | '49 | 1912 | 409 | 1792 | 4838 | 1155 | 464 | 213 | 173 | 1302 | 1760 | 835 | 3067 | 1729 | 1547 | 1733 | 1886 | 1694 | 660 | 689 | 810 | 2165 | 1325 | 2065 | 2297 | 989 |
| | '48 | 1797 | 517 | 1384 | 5886 | 1090 | 696 | 283 | 274 | 1366 | 1511 | 667 | 3295 | 2221 | 1323 | 1346 | 1508 | 1271 | 733 | 910 | 1243 | 2952 | 1258 | 1664 | 1965 | 653 |
| | '47 | 924 | 318 | 619 | 5130 | 617 | 506 | 202 | 272 | 867 | 786 | 335 | 2396 | 1430 | 741 | 869 | 777 | 490 | 365 | 649 | 949 | 1773 | 814 | 685 | 1390 | 334 |
| | '46 | 633 | 150 | 467 | 2723 | 307 | 256 | 97 | 122 | 596 | 636 | 215 | 1138 | 519 | 454 | 493 | 488 | 383 | 260 | 316 | 662 | 1025 | 431 | 553 | 770 | 197 |
| | '45 | 191 | 121 | 159 | 1307 | 190 | 168 | 44 | 30 | 251 | 157 | 88 | 506 | 272 | 227 | 225 | 156 | 86 | 74 | 139 | 209 | 484 | 170 | 116 | 351 | 76 |
| | '44 | 129 | 41 | 62 | 873 | 87 | 50 | 33 | 19 | 108 | 81 | 44 | 289 | 165 | 77 | 82 | 96 | 57 | 79 | 75 | 158 | 254 | 137 | 63 | 161 | 48 |
| | '43 | 37 | 22 | 17 | 809 | 27 | 4 | 4 | 3 | 35 | 21 | 46 | 35 | 32 | 9 | 26 | 29 | 25 | 17 | 12 | 26 | 27 | 25 | 56 | 47 | 23 |
| | '42 | 654 | 198 | 406 | 1506 | 510 | 163 | 43 | 68 | 646 | 499 | 297 | 663 | 563 | 342 | 489 | 370 | 400 | 297 | 136 | 427 | 506 | 479 | 630 | 473 | 237 |
| | '41 | 711 | 231 | 581 | 4826 | 598 | 691 | 130 | 150 | 561 | 690 | 383 | 1670 | 1041 | 540 | 875 | 643 | 402 | 222 | 422 | 1199 | 1227 | 721 | 991 | 1013 | 380 |
| | '40 | 452 | 151 | 416 | 3663 | 422 | 468 | 89 | 104 | 385 | 534 | 252 | 1273 | 871 | 353 | 582 | 577 | 272 | 170 | 287 | 703 | 860 | 680 | 447 | 814 | 222 |
| | '39 | 203 | 133 | 247 | 2755 | 297 | 312 | 80 | 72 | 248 | 308 | 183 | 789 | 547 | 246 | 412 | 310 | 196 | 107 | 254 | 597 | 501 | 432 | 205 | 642 | 146 |
| | '38 | 144 | 79 | 141 | 1671 | 156 | 192 | 38 | 39 | 176 | 184 | 97 | 352 | 286 | 125 | 326 | 253 | 156 | 80 | 123 | 279 | 229 | 196 | 170 | 313 | 96 |
| | '37 | 206 | 162 | 341 | 3129 | 539 | 448 | 67 | 70 | 336 | 252 | 258 | 1000 | 840 | 320 | 672 | 564 | 144 | 152 | 221 | 563 | 727 | 529 | 226 | 850 | 204 |
| | '36 | 90 | 63 | 111 | 1847 | 230 | 251 | 39 | 35 | 146 | 103 | 140 | 376 | 378 | 162 | 310 | 191 | 63 | 65 | 129 | 318 | 385 | 319 | 99 | 349 | 78 |
| | '35 | 6 | 19 | 11 | 565 | 37 | 80 | 6 | 12 | 24 | 15 | 19 | 99 | 66 | 30 | 54 | 39 | 11 | 12 | 20 | 87 | 79 | 89 | 13 | 55 | 29 |
| | '34 | 4 | 12 | 4 | 350 | 22 | 47 | 4 | 10 | 9 | 13 | 16 | 50 | 37 | 11 | 35 | 27 | 3 | 11 | 14 | 51 | 39 | 48 | 4 | 30 | 8 |
| | Before '34 | 21 | 16 | 9 | 1003 | 49 | 150 | 9 | 6 | 21 | 26 | 19 | 117 | 83 | 28 | 96 | 51 | 29 | 14 | 30 | 106 | 81 | 88 | 17 | 139 | 25 |
| | Unid.* | 54 | 8 | 42 | 16 | 16 | 4 | 16 | 85 | 62 | 95 | 18 | 62 | 22 | 9 | 14 | 28 | 140 | 2 | 51 | 21 | 440 | 2 | 54 | 295 | 4 |
| | Total | 9286 | 2963 | 7742 | 44629 | 7169 | 5453 | 1554 | 1719 | 7889 | 8701 | 4443 | 19876 | 12388 | 7307 | 9804 | 8744 | 6895 | 3639 | 5015 | 9138 | 13504 | 8548 | 8755 | 14488 | 3953 |
| HUDSON | '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '41 | 14 | 17 | 8 | 103 | 9 | 4 | 2 | 1 | 16 | 6 | 6 | 28 | 36 | 22 | 20 | 10 | 6 | 5 | 7 | 8 | 38 | 12 | | 14 | 7 |
| | '40 | 6 | 5 | 1 | 120 | 9 | 3 | 3 | | 10 | 4 | 9 | 20 | 19 | 22 | 11 | 2 | 4 | 4 | 5 | 10 | 12 | 12 | 1 | 6 | 4 |
| | '39 | 1 | 2 | 4 | 50 | 3 | 6 | 1 | | 14 | 2 | 5 | 19 | 9 | 14 | 7 | 6 | 1 | 4 | 3 | 3 | 18 | 4 | | 9 | 4 |
| | '38 | 1 | 5 | 2 | 71 | 4 | 3 | 1 | 1 | 8 | 4 | 6 | 11 | 9 | 5 | 21 | 3 | 2 | 3 | 4 | 12 | 10 | 9 | 8 | 11 | 4 |
| | '37 | 12 | 17 | 6 | 268 | 48 | 23 | 3 | 1 | 18 | 10 | 23 | 31 | 44 | 43 | 66 | 5 | 1 | 6 | 11 | 16 | 50 | 38 | 8 | 14 | 19 |
| | '36 | 5 | 5 | 5 | 151 | 25 | 4 | 1 | | 16 | 10 | 11 | 23 | 37 | 8 | 21 | 7 | 2 | 13 | 1 | 2 | 27 | 18 | 1 | 5 | 23 |
| | '35 | 2 | 4 | 1 | 42 | 6 | 4 | | | 6 | 2 | 7 | 6 | 15 | 6 | 14 | | | 1 | 1 | 2 | 1 | 4 | 3 | 3 | 14 |
| | '34 | 1 | 2 | 3 | 19 | 10 | 4 | | | 3 | 1 | 1 | 5 | 2 | 4 | 8 | | | 6 | 1 | 3 | 9 | 3 | | 1 | 6 |
| | Before '34 | 1 | 7 | 4 | 114 | 24 | 30 | | | 10 | 5 | 5 | 10 | 15 | 2 | 25 | 2 | | 12 | 1 | 5 | 11 | 30 | 3 | 4 | 19 |
| | Unid.* | 49 | 2 | 29 | 565 | 28 | 64 | 21 | 7 | 130 | 49 | 26 | 275 | 161 | 76 | 65 | 42 | 28 | 37 | 58 | 151 | 367 | 66 | 31 | 88 | 9 |
| | Total | 92 | 68 | 54 | 1503 | 165 | 148 | 34 | 10 | 231 | 93 | 99 | 429 | 347 | 202 | 256 | 79 | 44 | 91 | 92 | 212 | 541 | 196 | 49 | 157 | 109 |
| INTERNATIONAL | '50 | 639 | 145 | 542 | 1637 | 542 | 458 | 141 | 140 | 747 | 809 | 265 | 3748 | 2030 | 1266 | 815 | 515 | 572 | 354 | 590 | 781 | 1237 | 1194 | 523 | 1729 | 296 |
| | '49 | 1720 | 300 | 1415 | 3496 | 1210 | 1112 | 257 | 234 | 1656 | 2068 | 928 | 6622 | 3138 | 3570 | 2647 | 2288 | 1971 | 601 | 1063 | 1634 | 2667 | 2916 | 1526 | 2574 | 1106 |
| | '48 | 2376 | 468 | 1514 | 5483 | 1789 | 1246 | 362 | 422 | 1832 | 2537 | 956 | 8267 | 3948 | 3725 | 2797 | 2763 | 2137 | 1003 | 1520 | 2306 | 3221 | 3039 | 1882 | 3014 | 1296 |
| | '47 | 2108 | 488 | 1506 | 7383 | 1658 | 1382 | 406 | 406 | 1897 | 2182 | 916 | 7414 | 3853 | 3416 | 2623 | 2205 | 1801 | 991 | 1707 | 2376 | 3079 | 2843 | 1414 | 3069 | 1115 |
| | '46 | 2211 | 388 | 1468 | 5169 | 998 | 998 | 250 | 250 | 1644 | 2046 | 577 | 5123 | 2694 | 2355 | 1924 | 1853 | 1587 | 803 | 1052 | 1927 | 2280 | 2497 | 1469 | 2470 | 786 |
| | '45 | 421 | 188 | 296 | 1631 | 277 | 314 | 85 | 31 | 383 | 439 | 260 | 1892 | 1097 | 899 | 431 | 630 | 403 | 258 | 356 | 679 | 578 | 465 | 359 | 686 | 205 |
| | '44 | 262 | 136 | 165 | 1125 | 173 | 82 | 49 | 22 | 174 | 218 | 134 | 910 | 438 | 339 | 316 | 192 | 199 | 129 | 206 | 319 | 334 | 257 | 159 | 401 | 116 |
| | '43 | 34 | 55 | 70 | 716 | 36 | 6 | 7 | 3 | 60 | 51 | 64 | 91 | 58 | 19 | 39 | 28 | 33 | 15 | 34 | 50 | 44 | 23 | 34 | 31 | 27 |
| | '42 | 790 | 197 | 596 | 1665 | 350 | 280 | 56 | 55 | 924 | 748 | 336 | 1294 | 564 | 624 | 569 | 491 | 692 | 341 | 236 | 506 | 446 | 747 | 673 | 537 | 253 |
| | '41 | 1155 | 403 | 903 | 4735 | 1034 | 1261 | 233 | 222 | 1284 | 1293 | 747 | 4945 | 3088 | 2342 | 2155 | 1389 | 1113 | 479 | 978 | 1737 | 1745 | 2148 | 935 | 2347 | 977 |
| | '40 | 844 | 281 | 671 | 4068 | 826 | 940 | 143 | 131 | 947 | 995 | 580 | 3691 | 2131 | 2025 | 1510 | 1195 | 982 | 341 | 801 | 1146 | 1397 | 2055 | 765 | 1762 | 719 |
| | '39 | 819 | 237 | 701 | 2811 | 577 | 786 | 146 | 89 | 648 | 848 | 444 | 2936 | 1658 | 1474 | 1066 | 902 | 962 | 275 | 611 | 1059 | 887 | 1578 | 778 | 1448 | 588 |
| | '38 | 324 | 200 | 386 | 2520 | 499 | 571 | 92 | 70 | 514 | 599 | 364 | 2195 | 1240 | 1146 | 1426 | 780 | 508 | 196 | 386 | 555 | 538 | 2464 | 414 | 1082 | 583 |
| | '37 | 344 | 247 | 299 | 3284 | 759 | 582 | 106 | 71 | 529 | 362 | 596 | 2091 | 1568 | 1317 | 1346 | 722 | 429 | 121 | 451 | 498 | 679 | 552 | 368 | 1226 | 457 |
| | '36 | 383 | 243 | 423 | 2847 | 725 | 617 | 90 | 24 | 500 | 474 | 525 | 1826 | 1224 | 1032 | 1179 | 685 | 519 | 188 | 373 | 498 | 576 | 1118 | 510 | 994 | 497 |
| | '35 | 174 | 103 | 214 | 1980 | 388 | 372 | 36 | 29 | 245 | 191 | 292 | 889 | 732 | 613 | 635 | 330 | 242 | 73 | 152 | 205 | 321 | 758 | 235 | 851 | 484 |
| | '34 | 57 | 90 | 61 | 762 | 99 | 200 | 20 | 8 | 111 | 78 | 105 | 347 | 245 | 255 | 210 | 116 | 88 | 62 | 88 | 128 | 104 | 342 | 68 | 236 | 200 |
| | Before '34 | 76 | 67 | 77 | 1486 | 208 | 337 | 28 | 9 | 91 | 90 | 114 | 585 | 423 | 594 | 839 | 199 | 174 | 51 | 121 | 169 | 259 | 882 | 98 | 449 | 382 |
| | Unid.* | 49 | 15 | 72 | 8 | 50 | 3 | 43 | 108 | 93 | 178 | 18 | 445 | 33 | 32 | 16 | 34 | 459 | 1 | 183 | 38 | 804 | 30 | 71 | 521 | 9 |
| | Total | 14798 | 4211 | 11369 | 52788 | 12170 | 11547 | 2552 | 2325 | 14279 | 16028 | 8221 | 55309 | 30152 | 28843 | 22543 | 17307 | 14871 | 6282 | 10728 | 16811 | 21246 | 25908 | 12281 | 25226 | 9894 |
| KENWORTH | '50 | | 2 | | 86 | 12 | | | | | | 35 | | | | 3 | | | | | | | 1 | | | 12 |
| | '49 | 1 | 4 | | 73 | 17 | | | | | | 33 | | | | 2 | | | | | | | | | | 26 |
| | '48 | | 6 | | 156 | 6 | | | | | | 34 | | | 2 | | | | | | | | | | | 10 |
| | '47 | | 4 | | 219 | 22 | | | | | | 28 | | | 1 | 1 | | | | | | | | | 1 | 17 |
| | '46 | | 5 | | 144 | 15 | | | | | | 36 | | | | | | | | | | | | | | 12 |
| | '45 | | 10 | | 95 | 12 | | | | | | 30 | | | | | | | | | | | 1 | | | 30 |
| | '44 | | 1 | | 54 | 6 | | | | | | 12 | | | | | | | | | | | | | | |
| | '43 | | | | 20 | | | | | | | 1 | | | | | | | | | | | | | | 1 |
| | '42 | | 1 | | 21 | 3 | | | | | | 12 | 3 | | | | | | | | | | | | | 2 |
| | '41 | | 2 | | 82 | 3 | | | | | | 15 | | | 1 | | | | | | | | | | | 1 |
| | '40 | | | | 51 | 2 | | | | | | 7 | | | | | | | | | | | | | 1 | 8 |
| | '39 | | 2 | | 45 | 1 | | | | | | 9 | | | 1 | | | | | | | | | | | 2 |
| | '38 | | 1 | | 19 | 2 | | | | | | 1 | | | | | | | | | | | | | | |
| | '37 | | 1 | | 31 | 1 | | | | | | 18 | | | | | | | | | | | | | | 2 |
| | '36 | | 1 | | 78 | 1 | | | | | | 6 | | | | | | | | | 1 | | | | | 1 |
| | '35 | | 1 | | 18 | 1 | | | | | | 6 | 26 | | | | | | | | | | 3 | | | |
| | '34 | | | | 2 | | | | | | | 3 | | | | | 1 | | | | | | 2 | | | |
| | Before '34 | 1 | 1 | | 12 | | | | | | | 1 | | | | | | | | | | | 3 | | | |
| | Unid.* | | | | | | | | | | | ? | | | | | | | | | | | 13 | | 3 | 1 |
| | Total | 2 | 42 | | 1206 | 104 | | | | | | 289 | 29 | | 5 | 6 | 1 | | | 1 | | 29 | 1 | 5 | 123 |
| MACK | '50 | 97 | 5 | 26 | 114 | 14 | 97 | 12 | 40 | 152 | 70 | 10 | 262 | 57 | 38 | 2 | 8 | 11 | 30 | 91 | 265 | 147 | 58 | 12 | 248 | 1 |
| | '49 | 167 | 11 | 17 | 137 | 18 | 208 | 17 | 42 | 253 | 113 | 9 | 222 | 77 | 62 | 7 | 44 | 78 | 74 | 132 | 307 | 189 | 189 | 43 | 69 | 4 |
| | '48 | 153 | 10 | 29 | 297 | 48 | 251 | 25 | 67 | 219 | 129 | 39 | 341 | 111 | 94 | 36 | 67 | 110 | 91 | 198 | 439 | 159 | 104 | 67 | 86 | 20 |
| | '47 | 126 | 20 | 42 | 511 | 53 | 328 | 29 | 48 | 266 | 186 | 28 | 527 | 169 | 178 | 42 | 98 | 151 | 123 | 224 | 476 | 204 | 139 | 110 | 260 | 12 |
| | '46 | 84 | 9 | 14 | 136 | 10 | 97 | 9 | 7 | 214 | 114 | 8 | 169 | 47 | 82 | 16 | 28 | 74 | 47 | 64 | 209 | 67 | 82 | 47 | 47 | 3 |
| | '45 | 47 | 7 | 3 | 146 | 21 | 86 | 12 | 8 | 127 | 100 | 15 | 140 | 53 | 66 | 14 | 13 | 68 | 35 | 91 | 250 | 65 | 108 | 27 | 93 | 1 |
| | '44 | 33 | 1 | 5 | 103 | 15 | 50 | 7 | 7 | 139 | 62 | 23 | 108 | 25 | 28 | 13 | 7 | 16 | 35 | 55 | 139 | 25 | 29 | 4 | 43 | 2 |
| | '43 | 7 | | | 13 | 1 | 3 | 1 | 1 | 20 | 4 | 2 | 14 | | | | | | 4 | 8 | 24 | 9 | 3 | | 4 | 1 |
| | '42 | 66 | 3 | 3 | 161 | 9 | 30 | 5 | 11 | 215 | 69 | 3 | 375 | 134 | 16 | 9 | 13 | 56 | 28 | 37 | 173 | 28 | 21 | 15 | 106 | |
| | '41 | 43 | 9 | 7 | 458 | 25 | 352 | 20 | 50 | 170 | 69 | 10 | 261 | 99 | 25 | 19 | 70 | 47 | 49 | 160 | 492 | 51 | 124 | 18 | 261 | 2 |
| | '40 | 38 | 3 | 14 | 387 | 23 | 239 | 12 | 32 | 74 | 69 | 5 | 280 | 52 | 32 | 16 | 31 | 26 | 51 | 94 | 365 | 39 | 71 | 17 | 100 | 2 |
| | '39 | 15 | 15 | 6 | 309 | 19 | 171 | 12 | 12 | 61 | 30 | 5 | 231 | 43 | 39 | 6 | 23 | 28 | 23 | 89 | 281 | 31 | 64 | 6 | 98 | |
| | '38 | 4 | 2 | 5 | 233 | 11 | 108 | 6 | 7 | 34 | 28 | 2 | 106 | 18 | 13 | 5 | 16 | 10 | 17 | 43 | 142 | 11 | 35 | 6 | 52 | |
| | '37 | 5 | 9 | 4 | 226 | 19 | 75 | 6 | 5 | 33 | 18 | 8 | 135 | 25 | 16 | 7 | 22 | 16 | 8 | 46 | 164 | 27 | 24 | 10 | 80 | 2 |
| | '36 | 3 | 2 | | 153 | 6 | 74 | 5 | 7 | 15 | 14 | 2 | 69 | 15 | 8 | | 18 | 4 | 6 | 32 | 96 | 22 | 30 | 1 | 30 | 1 |
| | '35 | 1 | | 2 | 70 | 1 | 25 | 1 | 4 | 10 | | 1 | 5 | 1 | 2 | 5 | 3 | 1 | 10 | 13 | 46 | 8 | 11 | | 19 | |
| | '34 | | | | 41 | | 16 | 1 | 1 | 4 | 1 | | 34 | 5 | 5 | 3 | 7 | 1 | 10 | 8 | 47 | 12 | 8 | 1 | 2 | 3 |
| | Before '34 | 3 | 22 | 3 | 569 | 17 | 170 | 10 | 6 | 41 | 15 | 16 | 473 | 23 | 32 | 16 | 69 | 28 | 30 | 72 | 242 | 61 | 74 | 1 | 83 | 8 |
| | Unid.* | 3 | | 3 | 1 | 2 | | 2 | 16 | 10 | 12 | 1 | 15 | 1 | 1 | | 1 | 38 | 1 | 14 | 7 | 87 | 2 | 3 | 12 | |
| | Total | 673 | 133 | 166 | 4186 | 312 | 2380 | 192 | 381 | 2047 | 1103 | 185 | 3537 | 838 | 755 | 229 | 533 | 760 | 672 | 1471 | 4144 | 1222 | 1185 | 423 | 1844 | 82 |

Unid. * Unidentified as to model year

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# ● TOTAL REGISTRATIONS ●

## AND MODEL YEAR – continued

| Model | Yr. | Keb. | Nov. | N.H. | N. J. | N.M. | N. Y. | N. C. | N. D. | Ohio | Okla. | Ore. | Pa. | R. I. | S. C. | S. D. | Tenn. | Tex. | Utah | Vt. | Va. | Wash. | W.Va. | Wis. | Wyo. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G.M.C. | '50 | 903 | 191 | 192 | 1568 | 926 | 2293 | 1292 | 116 | 2485 | 1146 | 725 | 2381 | 71 | 500 | 279 | 1282 | 5717 | 435 | 167 | 793 | 1203 | 525 | 1106 | 281 | 61243 |
| | '49 | 1043 | 189 | 216 | 1772 | 580 | 3427 | 1622 | 606 | 2203 | 1838 | 1228 | 3358 | 121 | 1001 | 473 | 2156 | 6307 | 564 | 226 | 1420 | 1165 | 811 | 1207 | 444 | 71116 |
| | '48 | 892 | 155 | 233 | 2330 | 502 | 4658 | 1294 | 582 | 3638 | 1314 | 1578 | 4772 | 194 | 833 | 386 | 2015 | 4606 | 488 | 296 | 1417 | 1550 | 1509 | 1563 | 295 | 75091 |
| | '47 | 621 | 76 | 131 | 1731 | 263 | 3148 | 686 | 266 | 2556 | 886 | 654 | 3776 | 218 | 403 | 342 | 943 | 3149 | 222 | 168 | 864 | 838 | 717 | 857 | 149 | 47852 |
| | '46 | 231 | 54 | 89 | 631 | 145 | 1530 | 427 | 119 | 945 | 439 | 443 | 2026 | 63 | 296 | 186 | 760 | 1278 | 146 | 90 | 407 | 377 | 422 | 546 | 83 | 25504 |
| | '45 | 129 | 14 | 17 | 572 | 44 | 1193 | 119 | 48 | 467 | 201 | 310 | 679 | 57 | 129 | 101 | 120 | 703 | 63 | 39 | 158 | 296 | 348 | 167 | 52 | 11839 |
| | '44 | 58 | 4 | 9 | 213 | 28 | 373 | 76 | 30 | 287 | 179 | 153 | 494 | 12 | 77 | 45 | 100 | 352 | 26 | 29 | 97 | 224 | 98 | 128 | 35 | 8015 |
| | '43 | 14 | 13 | 4 | 35 | 11 | 127 | 35 | 9 | 49 | 67 | 138 | 116 | 2 | 32 | 7 | 29 | 169 | 18 | 13 | 25 | 180 | 69 | 18 | 10 | 2400 |
| | '42 | 331 | 84 | 40 | 849 | 181 | 1472 | 386 | 187 | 866 | 575 | 927 | 3365 | 56 | 281 | 218 | 559 | 1845 | 131 | 73 | 346 | 1031 | 480 | 425 | 136 | 22489 |
| | '41 | 404 | 117 | 96 | 1394 | 289 | 2603 | 594 | 358 | 1704 | 820 | 978 | 1949 | 235 | 362 | 290 | 997 | 2205 | 274 | 131 | 805 | 1126 | 652 | 928 | 295 | 39529 |
| | '40 | 294 | 78 | 105 | 1025 | 163 | 2078 | 371 | 290 | 1146 | 551 | 629 | 1321 | 145 | 218 | 192 | 673 | 1404 | 169 | 103 | 379 | 782 | 442 | 575 | 117 | 28197 |
| | '39 | 237 | 46 | 81 | 576 | 121 | 1290 | 248 | 123 | 787 | 408 | 375 | 1627 | 117 | 176 | 162 | 361 | 788 | 119 | 70 | 276 | 506 | 212 | 451 | 82 | 19441 |
| | '38 | 124 | 50 | 53 | 425 | 50 | 879 | 138 | 70 | 401 | 276 | 318 | 569 | 86 | 61 | 56 | 253 | 441 | 72 | 36 | 159 | 328 | 167 | 246 | 40 | 11239 |
| | '37 | 239 | 72 | 72 | 707 | 169 | 1650 | 338 | 145 | 1017 | 694 | 566 | 1043 | 130 | 156 | 106 | 385 | 977 | 188 | 105 | 312 | 723 | 423 | 667 | 118 | 23564 |
| | '36 | 176 | 34 | 45 | 348 | 37 | 767 | 97 | 101 | 385 | 280 | 264 | 714 | 89 | 80 | 99 | 128 | 281 | 72 | 54 | 131 | 385 | 171 | 367 | 28 | 11307 |
| | '35 | 39 | 6 | 7 | 98 | 6 | 195 | 4 | 38 | 92 | 27 | 46 | 70 | 27 | 11 | 24 | 19 | 32 | 11 | 13 | 22 | 89 | 34 | 81 | 10 | 2430 |
| | '34 | 35 | 6 | 3 | 65 | 1 | 185 | 6 | 23 | 30 | 20 | 39 | 61 | 15 | 4 | 13 | 10 | 30 | 5 | 5 | 9 | 84 | 27 | 53 | 4 | 1594 |
| | Before '34 | 73 | 15 | 5 | 168 | 10 | 304 | 11 | 83 | 70 | 37 | 89 | 111 | 27 | 13 | 24 | 40 | 77 | 9 | 9 | 15 | 135 | 19 | 110 | 13 | 3887 |
| | Unid.* | 44 | | 4 | 354 | 32 | 27 | 6 | 28 | 22 | 30 | | 98 | 14 | 14 | 15 | 105 | 70 | 2 | 4 | 6 | 1 | 4 | 30 | 1 | 2473 |
| | Total | 5777 | 1184 | 1401 | 14564 | 3508 | 28225 | 7760 | 3112 | 19059 | 9750 | 9451 | 25839 | 1680 | 4809 | 3185 | 10835 | 30341 | 2906 | 1619 | 7348 | 11021 | 7127 | 9538 | 2093 | 457312 |
| HUDSON | '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '41 | 7 | 1 | 3 | 21 | 6 | 34 | 15 | 2 | 41 | 12 | 24 | 19 | 2 | 5 | 5 | 5 | 47 | 2 | 4 | 7 | 41 | 14 | 34 | 7 | 756 |
| | '40 | 5 | | | 12 | 2 | 14 | 16 | 1 | 20 | 10 | 7 | 16 | 4 | 5 | 2 | 9 | 31 | 1 | 2 | 6 | 23 | 3 | 14 | 2 | 309 |
| | '39 | 4 | 4 | 4 | 26 | 2 | 21 | 5 | 2 | 13 | 3 | 7 | 15 | | 7 | 2 | 2 | 20 | 1 | | 2 | 8 | 2 | 6 | 1 | 350 |
| | '38 | 9 | | | 23 | 2 | 11 | 4 | 4 | 11 | 8 | 9 | 29 | | 7 | 3 | 7 | 19 | 3 | 1 | 1 | 11 | 1 | 11 | 1 | 383 |
| | '37 | 9 | 3 | 1 | 30 | 12 | 38 | 8 | 17 | 44 | 19 | 52 | 23 | | 11 | 9 | 12 | 54 | 11 | 4 | 7 | 71 | 23 | 28 | 4 | 1285 |
| | '36 | 6 | 3 | | 10 | 3 | 54 | 6 | 2 | 33 | 9 | 30 | 23 | 2 | 4 | 6 | 1 | 26 | 6 | 1 | 3 | 39 | 17 | 27 | 5 | 739 |
| | '35 | 1 | | 2 | 9 | | 15 | 1 | 3 | 11 | 1 | 12 | 3 | 1 | 3 | 4 | 1 | 3 | 2 | | 2 | 18 | 5 | 6 | 2 | 249 |
| | '34 | | 3 | 2 | 1 | | 10 | 3 | 1 | 5 | 3 | 7 | 1 | 1 | 4 | 3 | | 4 | | | 4 | 5 | 1 | 8 | 2 | 157 |
| | Before '34 | 13 | 1 | 2 | 9 | 1 | 36 | | 6 | 23 | 5 | 7 | 4 | 1 | | 19 | 3 | 9 | 2 | 2 | 5 | 29 | 9 | 40 | 2 | 586 |
| | Unid.* | 24 | 14 | 11 | 248 | 15 | 249 | 76 | 9 | 298 | 34 | 33 | 216 | 31 | 36 | 10 | 58 | 176 | 27 | 1 | 56 | 56 | 50 | 116 | 10 | 4276 |
| | Total | 78 | 29 | 25 | 409 | 43 | 482 | 134 | 47 | 499 | 104 | 168 | 340 | 42 | 85 | 65 | 98 | 391 | 55 | 15 | 95 | 301 | 124 | 284 | 38 | 9269 |
| INTERNATIONAL | '50 | 905 | 71 | 221 | 1123 | 308 | 1702 | 567 | 201 | 2858 | 865 | 602 | 3281 | 106 | 224 | 486 | 730 | 2815 | 228 | 157 | 520 | 1038 | 227 | 1885 | 188 | 42954 |
| | '49 | 2056 | 156 | 314 | 2348 | 418 | 5822 | 2065 | 1460 | 4940 | 2315 | 1265 | 4550 | 386 | 853 | 1315 | 2018 | 6488 | 638 | 335 | 1477 | 1958 | 848 | 2481 | 491 | 96765 |
| | '48 | 2221 | 194 | 344 | 2955 | 479 | 6863 | 2394 | 1672 | 6129 | 3082 | 1998 | 7281 | 466 | 1027 | 1781 | 2487 | 7556 | 648 | 411 | 2014 | 2276 | 1398 | 3260 | 668 | 119530 |
| | '47 | 1958 | 201 | 389 | 2955 | 476 | 6313 | 2137 | 1178 | 5667 | 2866 | 1637 | 8256 | 483 | 844 | 1306 | 2350 | 7671 | 623 | 391 | 2102 | 2049 | 1508 | 3064 | 522 | 115065 |
| | '46 | 1220 | 140 | 315 | 1965 | 322 | 4495 | 1890 | 835 | 4302 | 1688 | 1094 | 4885 | 369 | 825 | 846 | 2065 | 5179 | 456 | 321 | 1540 | 1438 | 941 | 2111 | 388 | 84401 |
| | '45 | 433 | 35 | 68 | 787 | 98 | 1548 | 376 | 197 | 1375 | 701 | 702 | 1801 | 147 | 119 | 256 | 399 | 1823 | 132 | 114 | 439 | 965 | 415 | 614 | 137 | 28923 |
| | '44 | 331 | 29 | 39 | 254 | 59 | 632 | 194 | 83 | 522 | 463 | 572 | 1327 | 88 | 83 | 158 | 193 | 846 | 82 | 82 | 184 | 398 | 177 | 382 | 63 | 14001 |
| | '43 | 15 | 19 | | 43 | 26 | 117 | 59 | 16 | 43 | 139 | 286 | 230 | 5 | 58 | 17 | 48 | 181 | 21 | 9 | 19 | 282 | 29 | 31 | 10 | 3332 |
| | '42 | 426 | 122 | 58 | 598 | 143 | 1329 | 590 | 251 | 1046 | 652 | 895 | 797 | 118 | 290 | 250 | 856 | 1484 | 186 | 67 | 323 | 1130 | 340 | 891 | 96 | 26620 |
| | '41 | 1330 | 152 | 243 | 2149 | 377 | 4794 | 1217 | 1211 | 3736 | 1873 | 1401 | 4696 | 359 | 490 | 990 | 1359 | 4305 | 429 | 213 | 1010 | 1922 | 1058 | 1967 | 390 | 77203 |
| | '40 | 1032 | 109 | 164 | 1501 | 236 | 3957 | 741 | 1039 | 2613 | 1223 | 991 | 2639 | 290 | 420 | 778 | 1079 | 2700 | 319 | 207 | 682 | 1329 | 787 | 1654 | 344 | 57560 |
| | '39 | 830 | 58 | 175 | 1182 | 191 | 2946 | 686 | 644 | 1848 | 903 | 630 | 3297 | 198 | 348 | 563 | 1035 | 2007 | 243 | 209 | 542 | 1048 | 556 | 1126 | 271 | 45872 |
| | '38 | 709 | 60 | 92 | 928 | 163 | 2270 | 481 | 693 | 1473 | 1029 | 545 | 1868 | 98 | 246 | 466 | 856 | 1706 | 209 | 94 | 333 | 962 | 384 | 925 | 185 | 39051 |
| | '37 | 703 | 83 | 57 | 1058 | 167 | 2171 | 567 | 568 | 1842 | 1205 | 633 | 2238 | 96 | 249 | 478 | 860 | 1976 | 265 | 79 | 430 | 1233 | 564 | 1073 | 251 | 37371 |
| | '36 | 706 | 83 | 83 | 822 | 156 | 1901 | 343 | 446 | 1490 | 943 | 660 | 2030 | 124 | 239 | 324 | 649 | 1555 | 248 | 99 | 306 | 963 | 535 | 949 | 214 | 33938 |
| | '35 | 616 | 28 | 48 | 413 | 71 | 1082 | 198 | 403 | 788 | 537 | 377 | 675 | 44 | 121 | 325 | 302 | 797 | 143 | 67 | 197 | 646 | 273 | 636 | 107 | 18996 |
| | '34 | 174 | 18 | 29 | 200 | 21 | 489 | 63 | 185 | 313 | 171 | 115 | 454 | 40 | 32 | 106 | 63 | 228 | 32 | 24 | 78 | 193 | 82 | 229 | 53 | 7442 |
| | Before '34 | 858 | 16 | 41 | 393 | 33 | 1069 | 36 | 1163 | 435 | 367 | 141 | 573 | 52 | 23 | 462 | 115 | 399 | 80 | 30 | 82 | 367 | 113 | 490 | 103 | 14889 |
| | Unid.* | 52 | 1 | | 1320 | 25 | 52 | 23 | 51 | 41 | 68 | 3 | 212 | 19 | 9 | 20 | 189 | 91 | | 2 | 14 | 3 | 14 | 52 | 2 | 8378 |
| | Total | 16175 | 1575 | 2691 | 22971 | 3767 | 49555 | 14667 | 12298 | 41461 | 21030 | 14537 | 51109 | 3468 | 6499 | 10947 | 16959 | 49888 | 4821 | 2872 | 12274 | 19751 | 10268 | 23710 | 4491 | 863281 |
| KENWORTH | '50 | | | | | 1 | | | | | | 14 | | | | 10 | | 5 | 3 | | | 31 | | | | 215 |
| | '49 | 1 | | | 1 | | | | | | | 69 | | | | 11 | | 23 | 1 | | | 42 | | | 2 | 336 |
| | '48 | | 3 | | | | | | | | | 104 | | | | 1 | | 9 | 4 | | | 58 | | 2 | 8 | 403 |
| | '47 | 1 | 1 | | 1 | 2 | | 1 | | | | 80 | | | | | | 7 | 7 | | | 110 | 1 | | 6 | 481 |
| | '46 | | | | | 2 | | | | | | 53 | | | | | | 17 | 3 | | 1 | 48 | | 1 | 6 | 330 |
| | '45 | | 4 | | 1 | 3 | 1 | | | | | 72 | | | | | | 6 | 1 | | | 51 | | | 4 | 321 |
| | '44 | | 1 | | | | | | | | | 13 | | | | | | | | | | 17 | | | | 104 |
| | '43 | | | | | | | | | | | 1 | | | | | | | | | | 7 | | | 1 | 31 |
| | '42 | | | | | 3 | | | | | | 15 | | | | | | | | | | 8 | | | | 68 |
| | '41 | | | | | 1 | | | | | | 17 | | | | | | | | | | 36 | | 2 | | 160 |
| | '40 | | | | | | | | | | | 18 | | | | | | | 1 | | | 36 | | | 1 | 125 |
| | '39 | | | | 1 | | | 1 | | | | 10 | | | | | | | | | | 23 | | 1 | | 96 |
| | '38 | | 1 | | | | | | | | | 6 | | | | | | | | | | 23 | | | | 90 |
| | '37 | | | | | | | 1 | | | | 5 | | | | | | | | | | 30 | | | | 90 |
| | '36 | | | | | | | | | | | 14 | | | | | | | | | | 31 | | | | 135 |
| | '35 | | | | | | | | | | | 11 | | | | | | | | | | 17 | | | | 56 |
| | '34 | | | | | | | | | | | 10 | | | | | | | | | | 22 | | | | 41 |
| | Before '34 | 1 | | | | | | | | | | 17 | | | | | | | | | | 133 | | | | 180 |
| | Unid.* | | | | | | | | | | | 1 | | | | | | | | | | | | | | 6 |
| | Total | 3 | 10 | | 3 | 13 | 2 | 3 | | | | 500 | | | | 22 | | 67 | 20 | | 1 | 719 | 1 | 6 | 27 | 3295 |
| MACK | '50 | 18 | 10 | 62 | 344 | 18 | 613 | 257 | 2 | 395 | 28 | 78 | 495 | 29 | 99 | 3 | 75 | 333 | 5 | 12 | 80 | 80 | 40 | 80 | 5 | 4922 |
| | '49 | 17 | 2 | 49 | 461 | 16 | 1228 | 369 | 6 | 265 | 28 | 105 | 709 | 55 | 103 | 6 | 126 | 152 | 14 | 10 | 90 | 86 | 48 | 85 | 10 | 6481 |
| | '48 | 61 | 3 | 35 | 649 | 19 | 1475 | 476 | 44 | 361 | 49 | 133 | 1215 | 49 | 113 | 23 | 128 | 339 | 26 | 20 | 138 | 125 | 212 | 122 | 16 | 9044 |
| | '47 | 123 | 4 | 104 | 819 | 31 | 2426 | 349 | 48 | 694 | 91 | 184 | 1353 | 47 | 131 | 34 | 143 | 406 | 21 | 62 | 132 | 173 | 196 | 157 | 23 | 12070 |
| | '46 | 41 | 2 | 41 | 288 | 15 | 741 | 221 | 7 | 165 | 18 | 52 | 533 | 5 | 53 | 14 | 66 | 103 | 6 | 27 | 47 | 78 | 34 | 80 | 2 | 4071 |
| | '45 | 28 | 3 | 32 | 405 | 27 | 831 | 191 | 2 | 223 | 25 | 64 | 521 | 26 | 55 | 15 | 37 | 161 | 7 | 31 | 42 | 64 | 66 | 39 | 3 | 4008 |
| | '44 | 5 | 3 | 12 | 238 | 4 | 405 | 111 | | 123 | 31 | 33 | 368 | 20 | 68 | | 41 | 106 | 3 | 11 | 36 | 24 | 30 | 19 | 13 | 2884 |
| | '43 | | | 1 | 51 | | 98 | 5 | 1 | 9 | 1 | 9 | 72 | | 10 | 1 | 2 | 3 | | 1 | 12 | 2 | 2 | 4 | 1 | 463 |
| | '42 | 6 | 2 | 4 | 125 | 5 | 298 | 83 | | 86 | 19 | 82 | 289 | 23 | 59 | | 33 | 64 | 2 | 5 | 24 | 36 | 32 | 32 | 6 | 3482 |
| | '41 | 17 | 6 | 53 | 782 | 4 | 1781 | 115 | 6 | 286 | 49 | 76 | 1120 | 88 | 71 | 4 | 55 | 122 | 19 | 21 | 67 | 155 | 69 | 74 | 3 | 7636 |
| | '40 | 7 | 5 | 27 | 557 | 2 | 1428 | 72 | 1 | 187 | 30 | 49 | 456 | 72 | 24 | 3 | 56 | 72 | 19 | 17 | 44 | 109 | 22 | 57 | 2 | 6387 |
| | '39 | 7 | 5 | 20 | 472 | 2 | 1191 | 49 | 1 | 175 | 22 | 37 | 530 | 49 | 18 | 6 | 20 | 45 | 6 | 12 | 39 | 53 | 17 | 38 | | 4995 |
| | '38 | 1 | 3 | 19 | 289 | 1 | 817 | 15 | 4 | 67 | 14 | 24 | 211 | 17 | 8 | 5 | 4 | 33 | 6 | 2 | 21 | 31 | 4 | 36 | 1 | 2546 |
| | '37 | 11 | 3 | 6 | 312 | 7 | 803 | 16 | 3 | 65 | 17 | 40 | 216 | 20 | 7 | 2 | 6 | 29 | 5 | 1 | 22 | 56 | 7 | 38 | 4 | 2682 |
| | '36 | 3 | 1 | 9 | 218 | 1 | 537 | 8 | 2 | 43 | 13 | 22 | 173 | 19 | 7 | 3 | 3 | 8 | 3 | 2 | 8 | 54 | 5 | 19 | | 1774 |
| | '35 | 1 | | 6 | 95 | | 317 | 4 | | 9 | 4 | 6 | 29 | 12 | 1 | | 2 | 3 | | 3 | | 7 | | 9 | | 774 |
| | '34 | 3 | | 2 | 71 | | 341 | 3 | 1 | 4 | 2 | 5 | 31 | 8 | 1 | 1 | 1 | 2 | | 1 | 2 | 11 | 2 | 6 | | 788 |
| | Before '34 | 12 | 3 | 5 | 634 | 5 | 2926 | 37 | 5 | 19 | 9 | 55 | 253 | 57 | 7 | 4 | 18 | 32 | 14 | 9 | 14 | 103 | 3 | 32 | 2 | 6395 |
| | Unid.* | | | | 134 | | 17 | 1 | 1 | 3 | 1 | 1 | 33 | 2 | 1 | | 1 | 7 | | | | 5 | | 5 | | 448 |
| | Total | 359 | 55 | 487 | 6922 | 159 | 18373 | 2351 | 132 | 3151 | 447 | 1006 | 8189 | 864 | 796 | 124 | 843 | 2019 | 196 | 247 | 803 | 1263 | 783 | 949 | 94 | 79600 |

Unid*—Unidentified as to model year.

Data from the Reuben H. Donnelly Corp. are as of July 1, 1950.

# ● TOTAL REGISTRATIONS ●

## TRUCKS IN USE BY MAKES, STATES,

| Model | Yr. | Ala. | Ariz. | Ark. | Calif. | Colo. | Conn. | Del. | D.C. | Fla. | Ga. | Idaho | Ill. | Ind. | Iowa | Kan. | Ky. | La. | Me. | Md. | Mass. | Mich. | Minn. | Miss. | Mo. | Mont. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PLYMOUTH | '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '42 | 11 | 5 | 16 | 26 | 14 | | 3 | | 3 | 8 | 2 | 7 | 9 | 2 | 3 | 3 | 14 | 2 | 7 | 4 | 3 | 7 | 7 | 8 | 4 |
| | '41 | 105 | 71 | 126 | 672 | 140 | 143 | 50 | 27 | 249 | 128 | 72 | 346 | 329 | 157 | 211 | 142 | 123 | 82 | 95 | 257 | 287 | 154 | 94 | 212 | 47 |
| | '40 | 102 | 87 | 134 | 842 | 169 | 120 | 43 | 23 | 241 | 107 | 56 | 315 | 289 | 201 | 169 | 157 | 116 | 54 | 80 | 224 | 248 | 163 | 95 | 289 | 64 |
| | '39 | 88 | 53 | 113 | 641 | 146 | 98 | 43 | 17 | 178 | 73 | 55 | 299 | 286 | 184 | 133 | 116 | 91 | 66 | 79 | 206 | 196 | 144 | 66 | 210 | 47 |
| | '38 | 56 | 36 | 69 | 493 | 103 | 58 | 26 | 4 | 169 | 87 | 45 | 199 | 169 | 88 | 136 | 67 | 76 | 24 | 53 | 82 | 102 | 91 | 52 | 127 | 48 |
| | '37 | 65 | 86 | 164 | 978 | 226 | 129 | 44 | 6 | 257 | 121 | 91 | 426 | 406 | 217 | 286 | 203 | 106 | 54 | 87 | 196 | 232 | 263 | 132 | 252 | 75 |
| | '36 | 71 | 32 | 77 | 217 | 67 | 53 | 20 | 1 | 169 | 110 | 17 | 61 | 122 | 48 | 115 | 40 | 81 | 21 | 39 | 61 | 70 | 83 | 71 | 74 | 22 |
| | '35 | 38 | 17 | 32 | 190 | 48 | 29 | 6 | 1 | 108 | 60 | 10 | 23 | 77 | 7 | 62 | 11 | 31 | 20 | 11 | 20 | 31 | 40 | 28 | 64 | 16 |
| | '34 | 25 | 29 | 54 | 143 | 37 | 30 | 3 | 3 | 86 | 33 | 13 | 10 | 57 | 2 | 44 | 11 | 19 | 19 | 8 | 25 | 20 | 29 | 26 | 52 | 6 |
| | Before '34 | 32 | 32 | 80 | 368 | 105 | 87 | 9 | | 138 | 43 | 11 | 27 | 146 | 18 | 76 | 27 | 33 | 30 | 21 | 22 | 27 | 95 | 25 | 100 | 34 |
| | Unid.* | 6 | 3 | 11 | 6 | 30 | 1 | 13 | 12 | 13 | 23 | 1 | 11 | 19 | 15 | 18 | 5 | 23 | 2 | 28 | 12 | 95 | 6 | 14 | 45 | 1 |
| | Total | 619 | 451 | 956 | 4586 | 1087 | 748 | 260 | 94 | 1611 | 763 | 373 | 1724 | 1909 | 939 | 1256 | 782 | 715 | 374 | 508 | 1079 | 1311 | 1077 | 610 | 1433 | 384 |
| PONTIAC | '50 | 15 | 1 | 17 | 30 | 27 | 10 | 72 | 12 | 15 | 7 | 8 | 76 | 33 | 14 | 24 | 3 | 19 | 13 | 25 | 57 | 71 | 17 | 9 | 33 | 5 |
| | '49 | 31 | 14 | 5 | 182 | 40 | 21 | 63 | 12 | 27 | 18 | 7 | 53 | 32 | 21 | 38 | 10 | 26 | 24 | 21 | 90 | 54 | 13 | 7 | 22 | 8 |
| | '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '40 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Before '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Unid.* | 6 | 1 | 23 | 75 | 25 | 18 | 41 | 2 | 8 | 35 | 1 | 14 | 38 | 4 | 38 | 7 | 22 | 15 | 12 | 24 | 21 | 32 | 14 | 40 | 9 |
| | Total | 52 | 16 | 45 | 287 | 92 | 49 | 176 | 26 | 50 | 60 | 16 | 143 | 103 | 39 | 100 | 20 | 67 | 52 | 58 | 171 | 146 | 62 | 30 | 95 | 20 |
| REO | '50 | 9 | 2 | 16 | 48 | 15 | 27 | 6 | 8 | 59 | 29 | 8 | 143 | 67 | 23 | 10 | 8 | 5 | 6 | 40 | 52 | 155 | 21 | 4 | 38 | 10 |
| | '49 | 50 | 12 | 65 | 118 | 26 | 34 | 12 | 12 | 70 | 82 | 27 | 206 | 143 | 71 | 66 | 47 | 36 | 10 | 70 | 85 | 130 | 54 | 30 | 132 | 44 |
| | '48 | 262 | 85 | 266 | 251 | 124 | 67 | 28 | 35 | 166 | 243 | 156 | 886 | 305 | 344 | 317 | 290 | 125 | 129 | 168 | 187 | 550 | 191 | 133 | 231 | 163 |
| | '47 | 214 | 96 | 99 | 540 | 92 | 85 | 35 | 42 | 183 | 196 | 80 | 548 | 344 | 269 | 178 | 159 | 137 | 106 | 200 | 206 | 591 | 172 | 119 | 184 | 54 |
| | '46 | 323 | 49 | 58 | 558 | 97 | 125 | 28 | 65 | 231 | 244 | 52 | 527 | 301 | 221 | 124 | 172 | 120 | 30 | 156 | 381 | 586 | 101 | 94 | 193 | 28 |
| | '45 | 33 | 6 | 4 | 196 | 28 | 10 | 6 | 10 | 40 | 34 | 7 | 266 | 137 | 63 | 24 | 91 | 19 | 12 | 37 | 97 | 174 | 88 | 8 | 33 | 6 |
| | '44 | 4 | 2 | 33 | 68 | 3 | 1 | 1 | | 13 | 3 | 1 | 9 | 17 | 1 | 1 | 1 | 6 | 3 | 8 | 26 | 16 | 7 | 2 | 1 | 1 |
| | '43 | 1 | | 6 | 42 | 2 | 1 | | | 3 | | | 1 | 1 | 1 | 2 | 1 | 4 | | 1 | 4 | 1 | 4 | | | 1 |
| | '42 | 17 | 5 | 7 | 178 | 15 | 5 | 2 | | 60 | 13 | 14 | 49 | 28 | 5 | 17 | 5 | 32 | 2 | 13 | 31 | 24 | 15 | 7 | 15 | 1 |
| | '41 | 4 | | 2 | 195 | 10 | 23 | 6 | 1 | 23 | 6 | 2 | 103 | 39 | 9 | 10 | 24 | 9 | 5 | 35 | 78 | 67 | 50 | 9 | 31 | 2 |
| | '40 | 2 | | 1 | 72 | 4 | 3 | 1 | | 4 | 3 | 1 | 30 | 5 | 3 | 2 | 9 | 1 | 2 | 7 | 13 | 11 | 4 | 3 | 8 | 1 |
| | '39 | 3 | | | 95 | 10 | 10 | 3 | | 19 | 3 | 1 | 51 | 8 | 9 | 13 | 4 | 4 | 2 | 15 | 23 | 21 | 20 | 2 | 41 | |
| | '38 | 4 | 8 | 12 | 254 | 25 | 48 | 9 | | 37 | 5 | 6 | 78 | 45 | 29 | 51 | 21 | 3 | 4 | 28 | 60 | 50 | 37 | 6 | 61 | 3 |
| | '37 | 3 | 12 | 8 | 290 | 48 | 79 | 5 | | 50 | 9 | 16 | 77 | 43 | 30 | 47 | 30 | 9 | 7 | 28 | 72 | 81 | 41 | 9 | 53 | 4 |
| | '36 | 5 | 5 | 9 | 171 | 37 | 60 | 4 | | 40 | 12 | 15 | 33 | 34 | 19 | 7 | 13 | 4 | 14 | 19 | 61 | 52 | 36 | | 22 | 11 |
| | '35 | 1 | 2 | 6 | 200 | 18 | 75 | 3 | 1 | 23 | 1 | 9 | 37 | 28 | 11 | 15 | 5 | 2 | 6 | 14 | 48 | 43 | 36 | 2 | 19 | 10 |
| | '34 | | 5 | 3 | 155 | 8 | 35 | 2 | 1 | 11 | 6 | 2 | 35 | 14 | 11 | 13 | 7 | | 8 | 13 | 36 | 27 | 23 | 1 | 19 | 6 |
| | Before '34 | 7 | 4 | 15 | 806 | 26 | 207 | 10 | 5 | 12 | 10 | 24 | 100 | 54 | 73 | 47 | 27 | 7 | 60 | 57 | 124 | 75 | 127 | 4 | 79 | 28 |
| | Unid.* | 1 | 1 | | | 2 | 2 | 2 | 12 | 8 | 9 | 2 | 21 | 2 | 19 | | 9 | 16 | | 9 | 4 | 77 | | | 10 | |
| | Total | 943 | 294 | 610 | 4235 | 590 | 909 | 159 | 192 | 1052 | 908 | 423 | 3213 | 1612 | 1231 | 943 | 924 | 538 | 406 | 915 | 1581 | 2734 | 1022 | 433 | 1170 | 373 |
| STERLING | '50 | | 4 | | 42 | | 11 | | | | | | 5 | 1 | | | | | | 11 | 54 | 2 | | | | |
| | '49 | | | | 65 | | 1 | | | | | | 2 | | 1 | | | | | 8 | 41 | | | | | |
| | '48 | | 9 | | 73 | | 2 | | | | | 1 | 12 | | | | | | 9 | 19 | 88 | 1 | 8 | | | |
| | '47 | | 7 | | 142 | | 4 | | | | | 2 | 17 | | | | | | 8 | 25 | 129 | 1 | 4 | | | 1 |
| | '46 | | 1 | | 124 | | 14 | 1 | | | | | 14 | | | | 1 | | 6 | 28 | 99 | 1 | | | | 2 |
| | '45 | | 2 | | 124 | 3 | 4 | | | | | 9 | 15 | | | | | | 9 | 16 | 79 | 1 | | | | 3 |
| | '44 | | 1 | | 103 | 4 | 1 | | 1 | | | | 2 | | | | | | | 8 | 23 | 2 | | | | |
| | '43 | | | | 8 | | | | | | | | 1 | | | | | | | 5 | 9 | 1 | | | | |
| | '42 | | 1 | | 45 | 3 | 1 | | 3 | | | | 17 | | 1 | | | | 8 | 13 | 23 | 7 | | | | |
| | '41 | | 4 | | 132 | 1 | 6 | | 6 | | | | 13 | | | | | | | 18 | 73 | 2 | | | | 1 |
| | '40 | | 2 | | 58 | | 1 | | 4 | | 1 | | 4 | | 1 | | | | | 14 | 58 | | | | | |
| | '39 | | 9 | | 67 | 5 | 3 | | 1 | | | 1 | 1 | | | | | | 2 | 11 | 39 | | | | | |
| | '38 | | 2 | | 53 | 2 | | | | | | | | | | | | | 1 | 3 | 30 | | | | | |
| | '37 | | 1 | | 64 | | 1 | | | | | | 7 | | | | 2 | | | 6 | 46 | | | | 1 | |
| | '36 | | 1 | | 71 | | | 3 | | | | | 3 | | | | 1 | | | 5 | 23 | | | | | |
| | '35 | | | | 25 | | 1 | | | | | | | 1 | | | | | | 1 | 16 | 1 | | | | |
| | '34 | | | | 17 | | | | | | | | 3 | | | | 1 | | | 1 | 2 | | | | | |
| | Before '34 | | 2 | | 173 | | 1 | | 10 | | | | 60 | 2 | | | | | | 14 | 33 | | | | 2 | |
| | Unid.* | | | | | | | | 2 | | | | | | | | | | | 2 | 2 | 2 | | | | |
| | Total | | 46 | | 1388 | 18 | 151 | 1 | 30 | | 1 | 13 | 176 | 4 | 3 | | 5 | | 45 | 206 | 869 | 21 | 12 | | 3 | 7 |
| STUDEBAKER | '50 | 561 | 114 | 624 | 1305 | 401 | 218 | 49 | 35 | 773 | 515 | 182 | 1325 | 1107 | 455 | 320 | 262 | 557 | 111 | 190 | 482 | 526 | 728 | 480 | 999 | 158 |
| | '49 | 1654 | 667 | 1592 | 3291 | 1242 | 686 | 149 | 130 | 1745 | 2029 | 1061 | 4041 | 3029 | 2146 | 1943 | 1589 | 1787 | 459 | 564 | 1194 | 2332 | 2418 | 1528 | 2043 | 945 |
| | '48 | 357 | 206 | 432 | 4418 | 315 | 307 | 99 | 59 | 515 | 521 | 344 | 1272 | 831 | 540 | 584 | 431 | 486 | 223 | 376 | 522 | 781 | 595 | 370 | 475 | 261 |
| | '47 | 603 | 304 | 560 | 3962 | 468 | 476 | 111 | 110 | 828 | 786 | 453 | 1944 | 1332 | 1021 | 942 | 682 | 758 | 368 | 426 | 825 | 1368 | 821 | 552 | 913 | 392 |
| | '46 | 347 | 178 | 305 | 2684 | 285 | 312 | 72 | 50 | 566 | 439 | 274 | 1178 | 1262 | 561 | 552 | 292 | 380 | 195 | 280 | 520 | 907 | 539 | 277 | 530 | 267 |
| | '45 | 21 | 22 | 12 | 269 | 30 | 27 | 7 | | 25 | 23 | 40 | 288 | 194 | 99 | 47 | 68 | 36 | 16 | 30 | 38 | 135 | 173 | 34 | 95 | 48 |
| | '44 | 7 | 6 | 1 | 100 | 18 | 5 | 2 | 1 | 12 | 9 | 281 | 62 | 22 | 27 | 7 | 54 | 6 | | 9 | 3 | 27 | 48 | 3 | 13 | 72 |
| | '43 | 2 | 2 | | 60 | 2 | 4 | 1 | | 4 | 3 | 7 | 19 | 22 | 6 | 8 | 16 | 2 | 7 | 1 | 4 | 11 | 2 | 2 | 8 | 54 |
| | '42 | 37 | 14 | 17 | 167 | 51 | 8 | 3 | 3 | 58 | 49 | 29 | 86 | 72 | 58 | 98 | 48 | 33 | 15 | 11 | 17 | 52 | 84 | 59 | 41 | 82 |
| | '41 | 67 | 35 | 58 | 504 | 77 | 65 | 13 | 14 | 82 | 57 | 91 | 220 | 298 | 96 | 113 | 90 | 49 | 27 | 52 | 78 | 174 | 94 | 30 | 103 | 86 |
| | '40 | 28 | 4 | 19 | 294 | 19 | 26 | 2 | 1 | 35 | 26 | 54 | 70 | 81 | 18 | 34 | 32 | 26 | 6 | 12 | 29 | 66 | 24 | 15 | 18 | 14 |
| | '39 | 13 | 14 | 46 | 349 | 34 | 22 | 4 | | 27 | 40 | 39 | 91 | 78 | 43 | 23 | 25 | 11 | 6 | 15 | 64 | 36 | 39 | 7 | 25 | 28 |
| | '38 | 2 | 4 | 6 | 309 | 20 | 17 | 2 | | 8 | 7 | 23 | 77 | 60 | 36 | 17 | 13 | 7 | 9 | 24 | 16 | 37 | 47 | 4 | 26 | 31 |
| | '37 | 17 | 27 | 26 | 671 | 59 | 30 | 6 | 1 | 26 | 22 | 56 | 83 | 148 | 79 | 99 | 43 | 13 | 25 | 27 | 33 | 73 | 95 | 6 | 43 | 48 |
| | '36 | 7 | 11 | 5 | 211 | 24 | 11 | 2 | | 9 | 8 | 10 | 52 | 66 | 23 | 17 | 12 | 7 | 5 | 7 | 15 | 15 | 46 | 7 | 37 | 14 |
| | '35 | 3 | 4 | 4 | 97 | 9 | 5 | 1 | | 3 | 7 | 7 | 62 | 40 | 7 | 16 | 10 | 5 | 7 | 1 | 9 | 4 | 29 | 3 | 15 | 9 |
| | '34 | 3 | 1 | 2 | 93 | 8 | 3 | | | 4 | 2 | 5 | 5 | 27 | 3 | 7 | 4 | | 9 | 2 | 10 | 6 | 13 | 2 | 4 | 5 |
| | Before '34 | 8 | 23 | 20 | 595 | 75 | 104 | 4 | | 19 | 19 | 12 | 34 | 94 | 33 | 47 | 51 | 10 | 19 | 16 | 28 | 27 | 130 | 3 | 41 | 21 |
| | Unid.* | 7 | | 25 | 10 | 6 | | 3 | 18 | 17 | 47 | 7 | 29 | 18 | 10 | 2 | 20 | 76 | 1 | 12 | 2 | 59 | 4 | 22 | 93 | |
| | Total | 3730 | 1636 | 3748 | 19389 | 3143 | 2328 | 530 | 422 | 4743 | 4809 | 2975 | 10913 | 8738 | 5251 | 4876 | 3742 | 4247 | 1509 | 2041 | 3867 | 6815 | 5819 | 3404 | 5520 | 2502 |

Unid* Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# ● TOTAL REGISTRATIONS ●
## AND MODEL YEAR—continued

| Model | Yr. | Nab. | Nev. | N.H. | N. J. | N.M. | N. Y. | N. C. | N. D. | Ohio | Okla. | Ore. | Pa. | R. I. | S. C. | S. D. | Tenn. | Tex. | Utah | Vt. | Va. | Wash. | W.Va. | Wis. | Wyo. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PLYMOUTH | '50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '49 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '42 | 2 | 1 | 6 | 35 | 1 | 13 | 5 | | 19 | 7 | 5 | 79 | 1 | 5 | 1 | 11 | 15 | 1 | 1 | 9 | 1 | 6 | 12 | 1 | 415 |
| | '41 | 58 | 30 | 80 | 485 | 58 | 517 | 203 | 84 | 446 | 140 | 142 | 617 | 89 | 142 | 51 | 157 | 493 | 31 | 31 | 183 | 182 | 175 | 249 | 33 | 8913 |
| | '40 | 70 | 33 | 54 | 342 | 79 | 464 | 157 | 65 | 463 | 161 | 154 | 646 | 67 | 108 | 62 | 103 | 516 | 38 | 42 | 185 | 206 | 168 | 248 | 22 | 8642 |
| | '39 | 55 | 11 | 37 | 310 | 35 | 448 | 127 | 55 | 334 | 126 | 127 | 718 | 55 | 67 | 58 | 97 | 419 | 53 | 26 | 113 | 119 | 144 | 204 | 24 | 7398 |
| | '38 | 76 | 11 | 14 | 229 | 36 | 371 | 92 | 26 | 248 | 102 | 90 | 422 | 16 | 45 | 31 | 73 | 322 | 22 | 17 | 80 | 89 | 127 | 207 | 21 | 5197 |
| | '37 | 93 | 30 | 37 | 344 | 74 | 547 | 203 | 59 | 480 | 195 | 204 | 680 | 46 | 99 | 59 | 142 | 523 | 63 | 27 | 154 | 231 | 256 | 460 | 30 | 10135 |
| | '36 | 38 | 10 | 12 | 149 | 20 | 126 | 62 | 11 | 132 | 69 | 46 | 339 | 16 | 49 | 33 | 54 | 184 | 12 | 3 | 31 | 79 | 89 | 134 | 8 | 3427 |
| | '35 | 33 | 5 | 6 | 55 | 4 | 39 | 31 | 4 | 79 | 38 | 27 | 69 | 9 | 12 | 21 | 35 | 72 | 6 | 4 | 24 | 62 | 41 | 88 | 4 | 1748 |
| | '34 | 21 | 4 | 11 | 47 | 3 | 39 | 14 | 4 | 48 | 28 | 21 | 48 | 18 | 15 | 10 | 30 | 48 | 7 | 6 | 22 | 32 | 22 | 53 | 9 | 1341 |
| | Before '34 | 66 | 9 | 29 | 92 | 4 | 106 | 37 | 10 | 97 | 47 | 46 | 125 | 24 | 22 | 41 | 33 | 91 | 5 | 13 | 23 | 107 | 44 | 155 | 3 | 2796 |
| | Unid.* | 2 | | 1 | 11 | 1 | 5 | 8 | 2 | 38 | 23 | 3 | 227 | 5 | 12 | 3 | 23 | 30 | 13 | 5 | 8 | 1 | 4 | 10 | 2 | 991 |
| | Total | 556 | 143 | 279 | 2180 | 312 | 2875 | 939 | 322 | 2381 | 936 | 865 | 3969 | 313 | 575 | 370 | 756 | 2993 | 250 | 175 | 812 | 1109 | 1079 | 1820 | 157 | 51203 |
| PONTIAC | '50 | 14 | 1 | 8 | 86 | 8 | 48 | 16 | 1 | 80 | 21 | 8 | 122 | 10 | 14 | 7 | 19 | 38 | 3 | | 12 | 19 | 9 | 29 | 5 | 1171 |
| | '49 | 11 | 3 | 12 | 81 | 6 | 181 | 24 | 2 | 83 | 38 | 14 | 70 | 18 | 12 | 3 | 9 | 25 | 10 | 3 | 13 | 31 | 14 | 35 | 2 | 1508 |
| | '48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '41 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '40 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Before '34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Unid.* | 3 | | 21 | 42 | 1 | 141 | 23 | 4 | 58 | 24 | 10 | 51 | 12 | 24 | 5 | 14 | 88 | 2 | 10 | 12 | 7 | 10 | 32 | 3 | 1132 |
| | Total | 28 | 4 | 41 | 189 | 17 | 340 | 63 | 7 | 221 | 80 | 32 | 243 | 40 | 50 | 15 | 42 | 161 | 15 | 13 | 37 | 57 | 33 | 96 | 10 | 3809 |
| REO | '50 | 10 | | 38 | 52 | 1 | 155 | 8 | | 130 | 18 | 5 | 236 | 2 | 1 | 6 | 9 | 25 | 6 | 4 | 11 | 11 | 9 | 60 | 1 | 1605 |
| | '49 | 28 | 1 | 6 | 106 | 4 | 335 | 52 | 7 | 190 | 66 | 29 | 338 | 11 | 10 | 22 | 72 | 123 | 21 | 20 | 31 | 65 | 34 | 108 | 12 | 3347 |
| | '48 | 120 | 10 | 28 | 253 | 38 | 725 | 271 | 85 | 740 | 242 | 111 | 995 | 35 | 131 | 117 | 237 | 441 | 43 | 57 | 133 | 170 | 273 | 335 | 34 | 11058 |
| | '47 | 96 | 15 | 40 | 274 | 18 | 701 | 239 | 48 | 684 | 196 | 126 | 917 | 11 | 168 | 67 | 164 | 475 | 7 | 54 | 191 | 168 | 174 | 270 | 9 | 10014 |
| | '46 | 71 | 9 | 61 | 136 | 21 | 584 | 304 | 39 | 420 | 180 | 113 | 685 | 3 | 199 | 57 | 136 | 299 | 8 | 38 | 158 | 172 | 126 | 251 | 18 | 8950 |
| | '45 | 22 | 1 | 16 | 51 | 8 | 142 | 26 | 31 | 173 | 38 | 45 | 195 | 2 | 30 | 25 | 15 | 80 | 6 | 12 | 38 | 75 | 62 | 81 | 12 | 2565 |
| | '44 | 1 | 1 | | 10 | 1 | 15 | 2 | 2 | 26 | 10 | 37 | 53 | | 3 | 3 | 2 | 7 | | 2 | 3 | 23 | | 6 | | 428 |
| | '43 | | | | 3 | 1 | 10 | 2 | 2 | 3 | 3 | 15 | 16 | | 1 | | | 5 | | | 1 | 6 | | | | 140 |
| | '42 | 3 | 6 | 5 | 46 | 2 | 80 | 9 | 1 | 34 | 7 | 119 | 48 | 2 | 9 | 2 | 8 | 16 | 4 | 2 | 12 | 63 | 20 | 24 | 2 | 1056 |
| | '41 | 6 | 2 | 9 | 48 | 1 | 93 | 4 | 4 | 73 | 4 | 51 | 170 | 11 | 3 | 6 | 3 | 21 | | | 11 | 38 | 37 | 31 | 5 | 1378 |
| | '40 | 2 | | 4 | | 3 | 15 | 3 | 1 | 6 | 3 | 6 | 57 | 1 | 2 | 1 | 4 | 3 | | 2 | 7 | 1 | 7 | 18 | | 336 |
| | '39 | 6 | | 1 | 27 | 2 | 61 | 3 | 2 | 30 | 5 | 7 | 52 | 1 | 1 | 2 | 3 | 6 | 2 | 2 | | 2 | 12 | 17 | 3 | 604 |
| | '38 | 18 | 2 | 2 | 60 | 7 | 116 | 8 | 4 | 108 | 29 | 32 | 144 | 8 | 4 | 9 | 5 | 25 | 1 | 6 | 7 | 27 | 35 | 44 | 8 | 1578 |
| | '37 | 11 | 2 | 2 | 40 | 4 | 133 | 8 | 5 | 107 | 28 | 32 | 165 | 11 | 6 | 17 | 7 | 15 | 4 | 6 | 16 | 31 | 39 | 70 | 8 | 1618 |
| | '36 | 15 | 8 | 9 | 30 | 3 | 93 | 1 | 10 | 47 | 16 | 20 | 104 | 6 | 3 | 11 | 3 | 16 | 1 | 6 | 4 | 21 | 16 | 30 | 3 | 1167 |
| | '35 | 9 | 5 | 5 | 35 | 3 | 142 | 4 | 7 | 33 | 5 | 28 | 54 | 6 | 6 | 9 | 3 | 14 | 5 | 7 | 4 | 49 | 11 | 39 | 2 | 1098 |
| | '34 | 3 | 1 | 5 | 35 | 7 | 64 | | 6 | 32 | 6 | 7 | 63 | 6 | 1 | 5 | 1 | 2 | 3 | 3 | 4 | 28 | 17 | 16 | 1 | 757 |
| | Before '34 | 37 | 5 | 12 | 181 | 3 | 298 | 6 | 39 | 124 | 25 | 40 | 220 | 30 | 7 | 30 | 9 | 50 | 6 | 25 | 10 | 99 | 29 | 127 | 4 | 3391 |
| | Unid.* | 1 | | | 88 | 2 | 11 | 1 | 1 | 2 | 6 | 1 | 9 | | | | 6 | 14 | | | | | | 19 | | 347 |
| | Total | 460 | 70 | 240 | 1455 | 128 | 3753 | 981 | 294 | 2942 | 865 | 815 | 4230 | 148 | 578 | 389 | 687 | 1617 | 117 | 247 | 841 | 1045 | 898 | 1514 | 119 | 51645 |
| STERLING | '50 | | | | 12 | | 15 | 2 | | | | 4 | 27 | 1 | | | 1 | | | | | 4 | | 5 | | 201 |
| | '49 | | | | 4 | | 34 | 4 | | | | 4 | 18 | | | | 2 | 2 | | | | 5 | | 1 | | 192 |
| | '48 | | | 1 | 12 | | 48 | 4 | | 4 | | 31 | 49 | | | | | | | | | 20 | | 11 | | 400 |
| | '47 | | | 6 | 11 | 1 | 66 | | | | | 17 | 69 | 4 | | | | 1 | | | | 20 | 1 | 42 | | 578 |
| | '46 | | | 16 | 11 | | 65 | | | 2 | | 16 | 72 | 9 | | | 3 | | | 2 | | 13 | | 51 | | 557 |
| | '45 | 1 | | 1 | 12 | | 16 | | | 2 | | 3 | 43 | 1 | | | | | | | 1 | 22 | 1 | 8 | | 405 |
| | '44 | | | | 2 | | 17 | | 1 | 1 | | 25 | 28 | | | | | | | | | 22 | 1 | 9 | | 249 |
| | '43 | | 1 | 2 | 7 | | 2 | | | | | 4 | 10 | | | | | | | | | 4 | | | | 84 |
| | '42 | 1 | 1 | | 3 | | 17 | 2 | | 1 | | 12 | 38 | 2 | 1 | | 1 | | | | | 11 | | 9 | 1 | 222 |
| | '41 | 1 | | 3 | 12 | | 32 | 1 | | 1 | | 3 | 35 | 8 | | | 3 | | | | | 21 | 2 | 16 | 1 | 395 |
| | '40 | 1 | | 4 | 9 | | 23 | | | | | 4 | 28 | 11 | | | | | | | | 9 | 1 | 7 | | 241 |
| | '39 | | | 6 | 17 | | 33 | | | | | 5 | 18 | 5 | | | | | | | | 3 | 2 | 6 | | 234 |
| | '38 | | | | 8 | | 23 | | | | | | 4 | 1 | | | | | | | | | | 1 | | 126 |
| | '37 | | | 1 | 8 | | 31 | | | | | | 16 | | | | | | | | | | | 11 | | 195 |
| | '36 | | 1 | 1 | 7 | | 21 | | | 2 | | | 10 | | | | | | | | | | | 13 | | 162 |
| | '35 | | | | 2 | | 16 | | | | | | | 1 | | | | | | | | | | 5 | | 89 |
| | '34 | | | | 2 | | 6 | | | 3 | | | 2 | 1 | | | | | | | | | | 6 | | 44 |
| | Before '34 | | | 1 | 12 | | 57 | | | 3 | | 3 | 24 | 2 | | | | | | | 1 | 4 | | 145 | | 549 |
| | Unid.* | | | | 2 | | 2 | | | | | | 3 | 2 | | | | 2 | | | | | | 2 | | 21 |
| | Total | 4 | 3 | 44 | 153 | 1 | 524 | 13 | 1 | 19 | | 160 | 492 | 48 | 1 | | 12 | 3 | | 2 | 2 | 189 | 9 | 348 | 2 | 4896 |
| STUDEBAKER | '50 | 375 | 84 | 81 | 442 | 332 | 616 | 536 | 112 | 1110 | 523 | 208 | 1117 | 60 | 217 | 193 | 644 | 2022 | 131 | 40 | 380 | 454 | 124 | 669 | 102 | 22909 |
| | '49 | 1611 | 250 | 156 | 1447 | 613 | 3256 | 2373 | 854 | 3265 | 1412 | 1292 | 2127 | 237 | 923 | 755 | 1846 | 6074 | 581 | 247 | 998 | 1477 | 750 | 1632 | 474 | 74914 |
| | '48 | 415 | 84 | 118 | 569 | 108 | 1237 | 628 | 317 | 1015 | 863 | 460 | 2985 | 92 | 207 | 273 | 490 | 1437 | 153 | 103 | 299 | 530 | 309 | 710 | 121 | 29442 |
| | '47 | 628 | 94 | 138 | 948 | 196 | 1969 | 1075 | 432 | 1599 | 805 | 772 | 2857 | 161 | 380 | 388 | 718 | 2351 | 272 | 131 | 606 | 863 | 545 | 703 | 188 | 38799 |
| | '46 | 345 | 74 | 57 | 686 | 132 | 1370 | 643 | 243 | 1289 | 447 | 520 | 1598 | 21 | 332 | 223 | 454 | 1607 | 167 | 59 | 483 | 676 | 292 | 494 | 107 | 29881 |
| | '45 | 40 | 3 | 9 | 44 | 9 | 108 | 42 | 61 | 218 | 40 | 72 | 239 | 6 | 16 | 66 | 22 | 127 | 18 | 9 | 29 | 74 | 64 | 120 | 19 | 3194 |
| | '44 | 6 | 1 | | 6 | 1 | 28 | 18 | 22 | 29 | 9 | 296 | 75 | 3 | 7 | 1 | 4 | 22 | 6 | 2 | 14 | 262 | 23 | 20 | 6 | 1615 |
| | '43 | 3 | | | 29 | 8 | 45 | 24 | 3 | 19 | 10 | 18 | 23 | | 3 | 1 | 2 | 6 | | 6 | 18 | 91 | 23 | 3 | 3 | 577 |
| | '42 | 26 | 3 | 5 | 36 | 15 | 57 | 55 | 52 | 88 | 52 | 44 | 67 | 2 | 25 | 14 | 59 | 106 | 15 | 4 | 36 | 84 | 20 | 32 | 28 | 2095 |
| | '41 | 58 | 21 | 16 | 99 | 20 | 270 | 130 | 80 | 310 | 68 | 120 | 473 | 68 | 51 | 46 | 67 | 287 | 50 | 19 | 90 | 189 | 84 | 94 | 37 | 8141 |
| | '40 | 10 | 4 | 3 | 45 | 12 | 94 | 15 | 6 | 51 | 20 | 26 | 153 | 2 | 8 | 8 | 26 | 80 | 10 | 4 | 10 | 27 | 13 | 34 | 8 | 1807 |
| | '39 | 16 | 4 | 2 | 41 | 13 | 250 | 11 | 10 | 66 | 14 | 49 | 89 | 10 | 3 | 12 | 12 | 66 | 24 | 6 | 6 | 76 | 24 | 28 | 11 | 1987 |
| | '38 | 16 | 5 | 3 | 32 | 4 | 86 | 2 | 7 | 48 | 15 | 29 | 96 | 1 | 5 | 9 | 16 | 48 | 13 | 6 | 2 | 48 | 14 | 30 | 8 | 1284 |
| | '37 | 23 | 24 | 11 | 69 | 10 | 194 | 13 | 20 | 122 | 40 | 119 | 150 | 16 | 15 | 29 | 18 | 103 | 43 | 6 | 15 | 161 | 48 | 76 | 12 | 3078 |
| | '36 | 4 | 2 | 2 | 39 | 1 | 80 | 3 | 7 | 46 | 9 | 27 | 82 | 3 | 7 | 9 | 14 | 31 | 6 | | 6 | 43 | 11 | 37 | | 1065 |
| | '35 | 6 | | 1 | 10 | | 27 | | 6 | 26 | 3 | 13 | 17 | 3 | 5 | 6 | 2 | 5 | 3 | | 2 | 21 | 9 | 19 | 1 | 542 |
| | '34 | 5 | 2 | 1 | 11 | 1 | 21 | | 6 | 13 | 2 | 6 | 21 | | 2 | 6 | 5 | 7 | 1 | | 3 | 10 | 7 | 11 | 2 | 391 |
| | Before '34 | 56 | 6 | 10 | 78 | 3 | 132 | 3 | 32 | 54 | 22 | 50 | 80 | 7 | 11 | 46 | 15 | 80 | 5 | 7 | 8 | 111 | 14 | 99 | 9 | 2338 |
| | Unid.* | 4 | | | 101 | 3 | 4 | 2 | 13 | 16 | 8 | 2 | 22 | 5 | 2 | 6 | 36 | 29 | | | 1 | | | 13 | | 756 |
| | Total | 3847 | 641 | 612 | 4721 | 1478 | 9869 | 5773 | 2283 | 9383 | 4358 | 4093 | 11781 | 717 | 2197 | 2064 | 4488 | 14462 | 1508 | 644 | 3788 | 5174 | 2374 | 4724 | 1127 | 218281 |

Unid*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

# ● TOTAL REGISTRATIONS ●

## TRUCKS IN USE BY MAKES, STATES,

| Model | Yr. | Ala. | Ariz. | Ark. | Calif. | Colo. | Conn. | Del. | D. C. | Fla. | Ga. | Idaho | Ill. | Ind. | Iowa | Kan. | Ky. | La. | Me. | Md. | Mass. | Mich. | Minn. | Miss. | Mo. | Mont. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WHITE | '50 | 106 | 9 | | 147 | 46 | 69 | 16 | 10 | 80 | 126 | 15 | 630 | 285 | 80 | 35 | 36 | 41 | 19 | 108 | 266 | 176 | 78 | 23 | 194 | 6 |
| | '49 | 144 | 18 | 1 | 232 | 59 | 47 | 20 | 25 | 137 | 129 | 13 | 625 | 240 | 80 | 79 | 89 | 95 | 35 | 133 | 215 | 269 | 79 | 44 | 146 | 9 |
| | '48 | 155 | 64 | 12 | 421 | 92 | 90 | 26 | 49 | 183 | 156 | 42 | 669 | 415 | 177 | 89 | 115 | 145 | 32 | 199 | 256 | 401 | 232 | 77 | 264 | 84 |
| | '47 | 181 | 52 | 12 | 571 | 92 | 143 | 35 | 47 | 181 | 196 | 34 | 773 | 379 | 160 | 172 | 161 | 178 | 76 | 236 | 396 | 355 | 302 | 98 | 341 | 92 |
| | '46 | 168 | 34 | 10 | 577 | 55 | 191 | 24 | 57 | 190 | 219 | 16 | 666 | 219 | 112 | 111 | 102 | 133 | 53 | 153 | 475 | 166 | 206 | 67 | 252 | 32 |
| | '45 | 77 | 23 | 17 | 432 | 68 | 93 | 11 | 38 | 91 | 80 | 19 | 388 | 225 | 92 | 79 | 67 | 77 | 20 | 90 | 229 | 193 | 128 | 26 | 191 | 16 |
| | '44 | 27 | 11 | 5 | 194 | 32 | 22 | 6 | 13 | 32 | 49 | 5 | 155 | 88 | 26 | 37 | 25 | 17 | 9 | 47 | 134 | 48 | 63 | 11 | 125 | 6 |
| | '43 | 6 | 4 | | 194 | 12 | 4 | 1 | 10 | 10 | 14 | 9 | 68 | 19 | 9 | 27 | 14 | 14 | 2 | 14 | 34 | 20 | 13 | 4 | 22 | 10 |
| | '42 | 48 | 12 | 9 | 248 | 63 | 26 | 4 | 12 | 96 | 77 | 21 | 190 | 47 | 38 | 49 | 46 | 68 | 12 | 35 | 114 | 35 | 69 | 26 | 77 | 17 |
| | '41 | 67 | 23 | 10 | 511 | 49 | 130 | 17 | 89 | 104 | 122 | 29 | 474 | 177 | 21 | 37 | 82 | 49 | 23 | 114 | 330 | 112 | 135 | 35 | 247 | 18 |
| | '40 | 29 | 15 | 4 | 486 | 20 | 61 | 8 | 26 | 48 | 52 | 7 | 187 | 80 | 9 | 19 | 59 | 32 | 5 | 55 | 139 | 38 | 60 | 6 | 124 | 5 |
| | '39 | 13 | 8 | 1 | 201 | 35 | 66 | 6 | 21 | 17 | 26 | 5 | 171 | 28 | 2 | 7 | 48 | 17 | 6 | 47 | 124 | 39 | 61 | 11 | 85 | 4 |
| | '38 | 8 | 9 | | 227 | 11 | 52 | 5 | 30 | 13 | 25 | 9 | 118 | 45 | 5 | 13 | 17 | 22 | 5 | 30 | 92 | 12 | 89 | 3 | 60 | 18 |
| | '37 | 27 | 21 | | 321 | 40 | 82 | 7 | 6 | 32 | 38 | 4 | 194 | 48 | 6 | 13 | 41 | 18 | 5 | 49 | 168 | 38 | 85 | 11 | 74 | 4 |
| | '36 | 13 | 2 | 1 | 259 | 23 | 53 | 7 | 15 | 24 | 27 | 5 | 180 | 30 | 4 | 16 | 29 | 16 | 6 | 50 | 164 | 34 | 98 | 4 | 71 | 6 |
| | '35 | 4 | 3 | | 149 | 5 | 15 | 2 | 7 | 12 | 9 | 4 | 19 | 16 | 1 | 4 | 13 | 16 | 3 | 13 | 52 | 6 | 29 | 3 | 25 | 3 |
| | '34 | 4 | 1 | 1 | 127 | 6 | 18 | 2 | 10 | 6 | 8 | 2 | 69 | 7 | 2 | 1 | 15 | 4 | 3 | 14 | 43 | 7 | 38 | 1 | 19 | 1 |
| | Before '34 | 10 | 12 | | 624 | 94 | 54 | 9 | 14 | 35 | 36 | 11 | 171 | 21 | 9 | 21 | 23 | 20 | 14 | 33 | 127 | 24 | 102 | 9 | 40 | 19 |
| | Unid.* | 11 | | | 3 | 1 | 2 | 2 | 27 | 18 | 19 | 3 | 29 | 12 | 3 | | 1 | 107 | 3 | 15 | 1 | 184 | 2 | 2 | 31 | 1 |
| | Total | 1097 | 321 | 83 | 5899 | 800 | 1197 | 206 | 475 | 1306 | 1406 | 253 | 5990 | 2368 | 855 | 809 | 970 | 1096 | 332 | 1425 | 3231 | 2154 | 1777 | 480 | 2370 | 293 |
| WILLYS | '50 | 386 | 98 | 227 | 461 | 441 | 148 | 52 | 42 | 425 | 162 | 178 | 413 | 313 | 97 | 154 | 151 | 367 | 201 | 67 | 139 | 210 | 173 | 111 | 222 | 386 |
| | '49 | 728 | 170 | 467 | 1849 | 751 | 235 | 63 | 45 | 690 | 523 | 415 | 942 | 585 | 506 | 482 | 780 | 997 | 323 | 140 | 252 | 631 | 504 | 477 | 473 | 939 |
| | '48 | 1073 | 389 | 965 | 3601 | 1543 | 510 | 200 | 138 | 811 | 1380 | 517 | 1444 | 1571 | 1291 | 945 | 1544 | 1589 | 642 | 331 | 617 | 1622 | 1452 | 878 | 737 | 1361 |
| | '47 | 794 | 304 | 525 | 3907 | 934 | 148 | 99 | 20 | 380 | 901 | 285 | 449 | 713 | 730 | 503 | 547 | 1056 | 383 | 166 | 183 | 1028 | 797 | 524 | 334 | 977 |
| | '46 | 459 | 365 | 324 | 4634 | 487 | 158 | 81 | 22 | 452 | 647 | 142 | 166 | 935 | 449 | 448 | 294 | 967 | 375 | 135 | 174 | 1261 | 642 | 339 | 174 | 380 |
| | '45 | 48 | 25 | 24 | 499 | 44 | 25 | 6 | 8 | 37 | 145 | 15 | 27 | 101 | 38 | 67 | 67 | 40 | 56 | 9 | 30 | 75 | 47 | 25 | 12 | 37 |
| | '44 | 21 | 11 | 8 | 278 | 31 | 9 | 3 | 4 | 6 | 66 | 4 | 12 | 3 | 8 | 6 | 26 | 15 | 5 | 6 | 10 | 17 | 14 | 4 | 6 | |
| | '43 | 21 | 27 | 22 | 727 | 53 | 9 | 3 | 5 | 6 | 167 | 13 | 2 | 13 | 11 | 40 | 16 | 29 | 14 | 5 | 11 | 7 | 24 | 11 | 16 | 24 |
| | '42 | 154 | 39 | 62 | 856 | 81 | 5 | 9 | 2 | 63 | 507 | 17 | 17 | 50 | 32 | 54 | 36 | 155 | 46 | 12 | 17 | 34 | 35 | 66 | 34 | 73 |
| | '41 | 80 | 26 | 39 | 727 | 21 | 13 | 11 | 5 | 117 | 119 | 12 | 38 | 34 | 26 | 20 | 16 | 53 | 21 | 24 | 30 | 48 | 30 | 38 | 32 | 24 |
| | '40 | 69 | 23 | 33 | 483 | 31 | 11 | 7 | 2 | 146 | 57 | 11 | 53 | 76 | 19 | 29 | 46 | 63 | 33 | 12 | 25 | 77 | 43 | 30 | 42 | 16 |
| | '39 | 17 | 11 | 11 | 232 | 10 | 14 | 7 | 1 | 58 | 5 | 3 | 14 | 43 | 7 | 17 | 9 | 12 | 29 | 12 | 19 | 16 | 9 | 8 | 19 | 5 |
| | '38 | 17 | 10 | 21 | 277 | 10 | 13 | 6 | | 69 | 28 | 6 | 34 | 60 | 19 | 50 | 13 | 32 | 7 | 6 | 27 | 38 | 19 | 18 | 47 | 8 |
| | '37 | 17 | 14 | 7 | 388 | 10 | 3 | 2 | | 53 | 15 | 5 | 15 | 48 | 3 | 8 | 7 | 17 | 4 | 4 | 8 | 15 | 13 | 12 | 14 | 3 |
| | '36 | 9 | 19 | 6 | 482 | 9 | 5 | 1 | | 49 | 17 | 6 | 2 | 26 | 3 | 3 | 4 | 9 | 4 | 1 | 2 | 17 | 4 | 6 | 14 | 3 |
| | '35 | 2 | 9 | 3 | 442 | 5 | 2 | | | 31 | 7 | 7 | 4 | 9 | 2 | 3 | | 5 | 2 | 1 | | 6 | 7 | 1 | 8 | |
| | '34 | | 3 | 2 | 37 | 2 | | | | 9 | 1 | 1 | | 2 | 1 | 1 | 2 | 2 | 1 | | | 2 | | | 4 | 1 |
| | Before '34 | 5 | 7 | 6 | 193 | 32 | 21 | 3 | | 17 | 11 | 2 | 42 | 20 | 36 | 6 | 30 | 28 | 8 | 9 | 6 | 17 | 51 | 1 | 47 | 7 |
| | Unid.* | 22 | 3 | 23 | 3 | 8 | 1 | 3 | 8 | 22 | 99 | 2 | 13 | 6 | 4 | 2 | 11 | 92 | 4 | 7 | 3 | 65 | 9 | 33 | 64 | 2 |
| | Total | 3912 | 1553 | 2827 | 20058 | 4503 | 1333 | 578 | 302 | 3411 | 4980 | 1624 | 3382 | 4639 | 3169 | 2967 | 3567 | 5097 | 2363 | 994 | 1559 | 5079 | 3872 | 2619 | 2256 | 4182 |
| MISC. | '50 | 110 | 11 | 18 | 183 | 100 | 65 | 27 | 13 | 52 | 112 | 14 | 201 | 70 | 29 | 49 | 21 | 105 | 9 | 26 | 174 | 158 | 84 | 34 | 70 | 35 |
| | '49 | 320 | 51 | 72 | 1043 | 255 | 165 | 61 | 34 | 137 | 248 | 47 | 410 | 122 | 95 | 98 | 140 | 205 | 18 | 61 | 389 | 275 | 249 | 154 | 239 | 106 |
| | '48 | 156 | 63 | 221 | 1416 | 143 | 311 | 72 | 51 | 78 | 275 | 50 | 749 | 123 | 73 | 85 | 135 | 172 | 32 | 75 | 513 | 205 | 167 | 83 | 208 | 81 |
| | '47 | 170 | 61 | 66 | 1401 | 201 | 163 | 41 | 11 | 112 | 228 | 25 | 760 | 138 | 79 | 82 | 105 | 108 | 44 | 66 | 473 | 302 | 162 | 54 | 206 | 67 |
| | '46 | 100 | 76 | 76 | 1262 | 97 | 289 | 55 | 17 | 82 | 254 | 34 | 637 | 103 | 61 | 64 | 92 | 139 | 54 | 55 | 384 | 176 | 129 | 72 | 155 | 71 |
| | '45 | 18 | 10 | 29 | 560 | 50 | 123 | 17 | 6 | 26 | 34 | 12 | 253 | 29 | 26 | 42 | 30 | 60 | 38 | 16 | 179 | 42 | 43 | 16 | 73 | 7 |
| | '44 | 6 | 1 | 13 | 306 | 19 | 35 | 10 | | 3 | 26 | 9 | 44 | 3 | 20 | 13 | 1 | 9 | 14 | 8 | 114 | 18 | 25 | 16 | 19 | 15 |
| | '43 | 2 | 6 | 8 | 237 | 7 | 25 | 5 | | 10 | 7 | 4 | 8 | 6 | 5 | 8 | 4 | 17 | 3 | 5 | 50 | 7 | 9 | 4 | 15 | 2 |
| | '42 | 74 | 27 | 39 | 296 | 36 | 66 | 14 | 1 | 25 | 110 | 37 | 181 | 27 | 44 | 23 | 22 | 60 | 21 | 14 | 171 | 34 | 41 | 41 | 180 | 17 |
| | '41 | 70 | 24 | 25 | 796 | 78 | 118 | 32 | 4 | 58 | 167 | 29 | 328 | 42 | 56 | 46 | 53 | 88 | 12 | 33 | 244 | 102 | 107 | 54 | 162 | 15 |
| | '40 | 76 | 20 | 18 | 732 | 35 | 67 | 28 | 1 | 66 | 122 | 14 | 279 | 44 | 23 | 38 | 73 | 94 | 10 | 27 | 168 | 95 | 73 | 41 | 172 | 12 |
| | '39 | 43 | 11 | 12 | 431 | 30 | 60 | 22 | 2 | 64 | 79 | 10 | 219 | 37 | 25 | 25 | 54 | 69 | 13 | 19 | 111 | 51 | 72 | 22 | 54 | 10 |
| | '38 | 30 | 9 | 19 | 385 | 21 | 71 | 22 | -1 | 46 | 77 | 22 | 170 | 44 | 29 | 45 | 49 | 33 | 13 | 20 | 124 | 42 | 88 | 22 | 80 | 6 |
| | '37 | 56 | 21 | 38 | 709 | 73 | 90 | 28 | 3 | 74 | 106 | 25 | 348 | 114 | 59 | 86 | 79 | 84 | 33 | 25 | 170 | 80 | 163 | 33 | 142 | 22 |
| | '36 | 48 | 27 | 74 | 628 | 57 | 64 | 27 | 3 | 65 | 85 | 19 | 275 | 106 | 40 | 86 | 62 | 81 | 29 | 24 | 184 | 72 | 116 | 38 | 146 | 16 |
| | '35 | 23 | 22 | 24 | 399 | 51 | 55 | 12 | 4 | 46 | 63 | 16 | 143 | 77 | 31 | 59 | 32 | 26 | 24 | 10 | 95 | 38 | 89 | 20 | 99 | 16 |
| | '34 | 21 | 14 | 29 | 1243 | 33 | 39 | 7 | | 44 | 34 | 14 | 28 | 91 | 19 | 50 | 33 | 22 | 18 | 6 | 73 | 23 | 61 | 11 | 48 | 12 |
| | Before '34 | 69 | 105 | 177 | 4839 | 377 | 756 | 135 | 6 | 222 | 210 | 99 | 997 | 480 | 216 | 501 | 142 | 169 | 276 | 128 | 943 | 181 | 775 | 63 | 472 | 222 |
| | Unid.* | 40 | 47 | 184 | 104 | 53 | 67 | 37 | 57 | 102 | 95 | 19 | 223 | 42 | 50 | 21 | 33 | 799 | 16 | 33 | 139 | 127 | 26 | 240 | 461 | 7 |
| | Total | 1434 | 606 | 1144 | 15778 | 1713 | 2790 | 684 | 244 | 1253 | 2329 | 521 | 6250 | 1658 | 980 | 1389 | 1160 | 2290 | 676 | 671 | 4718 | 2028 | 2480 | 1028 | 3150 | 741 |
| Total All Makes | | 146201 | 46785 | 131809 | 595886 | 15867 | 90375 | 23649 | 20231 | 155609 | 172941 | 62979 | 345017 | 210131 | 170389 | 182004 | 139973 | 137179 | 59686 | 88516 | 157406 | 249933 | 183404 | 127913 | 223446 | 69772 |

Unid.—Unidentified as to model year. Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

## Passenger Cars in Use by Makes and by Model Year*

*(As of July 1, 1950)*

| Makes | 1950 | 1949 | 1948 | 1947 | 1946 | 1945-'42 | 1941 | 1940 | 1939 | 1938 | 1937 | 1936 | 1935 | 1934 | Prior to 1934 | Year Unknown | Total July 1, 1950 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Buick | 306,277 | 311,029 | 294,948 | 241,391 | 138,245 | 90,330 | 343,441 | 259,122 | 175,629 | 129,319 | 160,313 | 96,345 | 24,475 | 17,555 | 50,399 | 4,403 | 2,543,229 |
| Cadillac | 35,909 | 82,909 | 48,683 | 53,963 | 25,553 | 13,405 | 59,273 | 13,013 | 11,113 | 7,170 | 9,135 | 5,933 | 1,506 | 1,047 | 4,198 | 635 | 373,445 |
| Chevrolet | 657,886 | 990,864 | 685,594 | 651,161 | 391,381 | 226,711 | 966,739 | 746,377 | 532,008 | 407,480 | 650,761 | 592,866 | 266,259 | 169,784 | 386,498 | 19,449 | 8,329,026 |
| Chrysler | 40,408 | 129,994 | 101,117 | 94,545 | 68,347 | 29,387 | 143,126 | 83,158 | 58,094 | 37,537 | 67,556 | 31,639 | 15,317 | 7,041 | 26,317 | 1,989 | 935,568 |
| Crosley | 3,215 | 8,318 | 25,384 | 16,299 | 1,990 | 769 | 761 | 243 | 356 | | | | | | | 388 | 57,623 |
| De Soto | 30,886 | 102,375 | 78,726 | 72,342 | 56,788 | 20,734 | 89,390 | 61,600 | 46,865 | 30,006 | 57,328 | 23,995 | 11,108 | 2,965 | 16,242 | 1,196 | 702,526 |
| Dodge | 83,925 | 277,562 | 200,620 | 214,048 | 145,943 | 60,572 | 218,349 | 181,342 | 162,237 | 90,006 | 212,571 | 164,770 | 74,434 | 28,626 | 57,850 | 5,428 | 2,178,283 |
| Ford | 637,106 | 1,004,357 | 264,592 | 407,741 | 415,879 | 146,691 | 644,075 | 504,279 | 395,193 | 266,172 | 534,361 | 489,860 | 332,801 | 178,049 | 852,276 | 19,843 | 7,091,275 |
| Frazer | 6,999 | 21,444 | 46,979 | 57,501 | | | | | | | | | | | | 1,932 | 134,755 |
| Graham | | | | | | | 742 | 1,135 | 2,917 | 2,078 | 6,830 | 4,319 | 2,986 | 1,392 | 4,855 | 204 | 27,408 |
| Hudson | 68,989 | 144,400 | 101,960 | 75,648 | 74,783 | 32,373 | 77,811 | 69,674 | 36,707 | 28,632 | 58,122 | 38,199 | 16,369 | 8,692 | 14,929 | 2,103 | 947,341 |
| Hupmobile | | | | | | | 163 | 62 | 896 | 701 | 104 | 614 | 1,867 | 828 | 5,627 | 110 | 10,572 |
| Kaiser | 26,240 | 756 | 89,119 | 60,745 | | | | | | | | | | | | 2,670 | 250,530 |
| La Salle | | | | | | | | | 19,680 | 16,135 | 10,741 | 19,974 | 6,465 | 3,410 | 1,749 | 2,991 | 83,344 |
| Lincoln | 12,2 | 61,077 | 10,783 | 19,804 | 13,155 | 5,381 | 18,172 | 18,651 | 14,962 | 10,660 | 13,937 | 5,662 | 462 | 372 | 1,473 | 524 | 206,283 |
| Mercury | 159,204 | 263,156 | 56,072 | 82,068 | 75,015 | 19,851 | 83,425 | 72,398 | 51,597 | | | | | | | 3,609 | 866,395 |
| Nash | 111,534 | 126,867 | 96,069 | 90,266 | 62,627 | 27,360 | 74,932 | 52,941 | 38,816 | 25,536 | 61,677 | 23,899 | 8,457 | 5,268 | 13,077 | 1,464 | 628,310 |
| Oldsmobile | 163,610 | 283,152 | 161,048 | 176,365 | 108,198 | 58,858 | 245,653 | 177,513 | 116,324 | 76,644 | 147,703 | 116,348 | 56,406 | 19,414 | 19,575 | 3,960 | 1,913,371 |
| Packard | 50,949 | 85,737 | 80,494 | 39,724 | 31,320 | 26,008 | 62,727 | 79,578 | 38,705 | 35,563 | 70,510 | 28,394 | 10,433 | 2,171 | 8,781 | 1,822 | 651,716 |
| Plymouth | 148,081 | 531,976 | 327,518 | 320,074 | 226,622 | 118,310 | 482,653 | 375,803 | 337,532 | 210,931 | 387,234 | 305,054 | 159,087 | 99,204 | 112,547 | 9,948 | 4,149,576 |
| Pontiac | 214,237 | 287,589 | 225,182 | 211,448 | 126,576 | 73,111 | 303,576 | 203,298 | 129,622 | 80,676 | 178,850 | 103,086 | 48,377 | 16,410 | 36,245 | 4,508 | 2,245,791 |
| Studebaker | 206,370 | 124,047 | 158,095 | 130,765 | 23,712 | 40,958 | 116,136 | 88,774 | 65,336 | 30,733 | 55,131 | 28,360 | 13,606 | 8,412 | 19,456 | 1,973 | 1,111,886 |
| Willys | 15,771 | 29,345 | 40,357 | 32,255 | 23,282 | 15,728 | 18,691 | 19,897 | 8,029 | 8,633 | 23,063 | 4,132 | 2,466 | 1,187 | 10,657 | 818 | 254,511 |
| Miscellaneous | 8,779 | 15,739 | 25,767 | 4,846 | 3,182 | 2,422 | 5,505 | 4,253 | 4,202 | 2,513 | 4,229 | 4,626 | 3,292 | * 2,396 | 27,703 | 10,094 | 129,547 |
| Total | 2,988,758 | 4,934,895 | 3,033,107 | 3,052,019 | 2,032,479 | 998,689 | 3,954,540 | 3,033,187 | 2,244,564 | 1,489,681 | 2,709,388 | 2,074,556 | 1,052,918 | 567,062 | 1,856,898 | 99,571 | 35,922,296 |

* Data from Reuben H. Donnelley Corp.

## AND MODEL YEAR—continued

| | Model Yr. | Neb. | Nev. | N.H. | N. J. | N.M. | N. Y. | N. C. | N. D. | Ohio | Okla. | Ore. | Pa. | R. I. | S. C. | S. D. | Tenn. | Tex. | Utah | Vt. | Va. | Wash. | W.Va. | Wis. | Wyo. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WHITE | '50 | 55 | 3 | 10 | 363 | 7 | 494 | 93 | ... | 764 | 114 | 36 | 611 | 16 | 36 | 14 | 97 | 255 | 18 | 1 | 84 | 65 | 26 | 168 | 3 | 5916 |
| | '49 | 48 | 6 | 15 | 327 | 30 | 767 | 204 | 4 | 729 | 124 | 63 | 724 | 38 | 74 | 9 | 164 | 479 | 20 | 4 | 145 | 82 | 68 | 148 | 10 | 7240 |
| | '48 | 114 | 3 | 14 | 412 | 27 | 923 | 276 | 35 | 1062 | 143 | 167 | 1144 | 56 | 128 | 24 | 215 | 664 | 29 | 22 | 208 | 155 | 292 | 299 | 42 | 10854 |
| | '47 | 187 | 3 | 28 | 455 | 61 | 1183 | 309 | 32 | 1304 | 189 | 170 | 1428 | 55 | 165 | 44 | 280 | 886 | 49 | 29 | 249 | 180 | 240 | 347 | 63 | 13113 |
| | '46 | 108 | 14 | 31 | 384 | 38 | 979 | 221 | 19 | 837 | 127 | 134 | 986 | 6 | 121 | 20 | 187 | 627 | 16 | 16 | 174 | 89 | 147 | 217 | 34 | 9583 |
| | '45 | 92 | 2 | 18 | 216 | 26 | 603 | 97 | 10 | 506 | 145 | 112 | 666 | 21 | 50 | 11 | 78 | 396 | 21 | 3 | 89 | 91 | 130 | 211 | 22 | 6280 |
| | '44 | 36 | 3 | 6 | 99 | 6 | 292 | 58 | 2 | 301 | 59 | 51 | 309 | 7 | 23 | 4 | 47 | 190 | 11 | 4 | 42 | 44 | 52 | 100 | 14 | 2941 |
| | '43 | 23 | 1 | 4 | 51 | 4 | 55 | 23 | 1 | 121 | 24 | 33 | 52 | 2 | 5 | 2 | 21 | 39 | 7 | 1 | 26 | 26 | 20 | 24 | 7 | 1106 |
| | '42 | 53 | 7 | 6 | 87 | 14 | 206 | 64 | 1 | 249 | 59 | 136 | 161 | 12 | 33 | 5 | 58 | 178 | 32 | 6 | 86 | 84 | 58 | 109 | 25 | 3188 |
| | '41 | 73 | 2 | 19 | 347 | 16 | 944 | 155 | 8 | 889 | 95 | 132 | 535 | 83 | 65 | 8 | 124 | 317 | 25 | 5 | 111 | 160 | 102 | 179 | 19 | 7389 |
| | '40 | 6 | 1 | 16 | 233 | 3 | 347 | 47 | 1 | 400 | 43 | 54 | 231 | 29 | 19 | 5 | 24 | 85 | 23 | 6 | 51 | 52 | 26 | 79 | 1 | 3343 |
| | '39 | 7 | 2 | 7 | 171 | 2 | 332 | 31 | 1 | 266 | 21 | 33 | 204 | 23 | 13 | 1 | 26 | 50 | 5 | 4 | 38 | 57 | 31 | 43 | 3 | 2307 |
| | '38 | 3 | 6 | 1 | 140 | 2 | 275 | 17 | 1 | 164 | 11 | 36 | 128 | 13 | 10 | ... | 15 | 56 | 3 | 6 | 9 | 67 | 15 | 20 | 1 | 1077 |
| | '37 | 5 | 3 | 7 | 197 | 1 | 448 | 24 | ... | 301 | 24 | 49 | 259 | 12 | 16 | 1 | 24 | 48 | 7 | 6 | 26 | 95 | 44 | 32 | 6 | 2847 |
| | '36 | 5 | 1 | 2 | 166 | 2 | 403 | 26 | 1 | 185 | 14 | 18 | 260 | 12 | 10 | 3 | 18 | 36 | 6 | 3 | 28 | 57 | 22 | 36 | ... | 2361 |
| | '35 | 2 | ... | ... | 74 | 2 | 159 | 7 | 2 | 91 | 7 | 17 | 41 | 4 | 6 | 3 | 7 | 16 | ... | ... | 9 | 24 | 6 | 11 | ... | 901 |
| | '34 | 2 | ... | 2 | 101 | ... | 190 | 1 | 1 | 99 | 9 | 23 | 34 | 6 | 3 | 1 | 4 | 12 | 1 | 1 | 9 | 31 | 6 | 12 | ... | 924 |
| | Before '34 | 16 | 3 | 1 | 148 | 5 | 319 | 5 | 6 | 175 | 16 | 56 | 145 | 20 | 11 | 1 | 14 | 28 | 2 | 2 | 22 | 168 | 8 | 27 | 9 | 2744 |
| | Unid.* | 4 | ... | ... | 103 | 1 | 10 | 3 | 2 | 12 | 5 | 7 | 28 | 3 | 3 | 1 | 17 | 15 | 1 | ... | 1 | ... | ... | 5 | ... | 667 |
| | Total | 841 | 59 | 185 | 4076 | 247 | 8918 | 1661 | 127 | 8425 | 1229 | 1329 | 7744 | 420 | 791 | 157 | 1400 | 4358 | 257 | 119 | 1406 | 1504 | 1293 | 2063 | 259 | 85670 |
| WILLYS | '50 | 311 | 56 | 82 | 510 | 133 | 985 | 212 | 61 | 463 | 263 | 852 | 922 | 30 | 130 | 188 | 148 | 769 | 139 | 121 | 139 | 348 | 474 | 217 | 227 | 12704 |
| | '49 | 807 | 85 | 79 | 743 | 93 | 951 | 783 | 188 | 954 | 917 | 821 | 1103 | 96 | 390 | 494 | 444 | 1961 | 294 | 195 | 375 | 462 | 1094 | 352 | 300 | 27580 |
| | '48 | 1357 | 107 | 206 | 1236 | 140 | 2391 | 2233 | 353 | 2294 | 1814 | 1494 | 2596 | 170 | 699 | 1140 | 638 | 3640 | 486 | 414 | 1046 | 789 | 2568 | 1367 | 475 | 58792 |
| | '47 | 674 | 63 | 120 | 479 | 61 | 947 | 1370 | 149 | 961 | 1172 | 956 | 1331 | 61 | 599 | 720 | 315 | 1668 | 265 | 372 | 521 | 412 | 1381 | 638 | 281 | 32502 |
| | '46 | 480 | 115 | 156 | 427 | 58 | 783 | 1241 | 116 | 1106 | 851 | 642 | 955 | 13 | 580 | 421 | 116 | 1435 | 142 | 326 | 429 | 243 | 953 | 735 | 102 | 28355 |
| | '45 | 52 | 16 | 23 | 57 | 1 | 81 | 72 | 16 | 122 | 80 | 107 | 48 | 12 | 40 | 33 | 16 | 114 | 13 | 27 | 37 | 31 | 113 | 47 | 6 | 2649 |
| | '44 | 6 | 6 | 11 | 63 | 5 | 38 | 56 | ... | 19 | 35 | 35 | 20 | 2 | 26 | 7 | 10 | 63 | 27 | 4 | 11 | 16 | 35 | 13 | 1 | 1117 |
| | '43 | 24 | 12 | 4 | 23 | 4 | 31 | 95 | 1 | 11 | 48 | 91 | 22 | ... | 35 | 5 | 4 | 115 | 34 | 13 | 17 | 23 | 54 | 4 | 14 | 1074 |
| | '42 | 51 | 30 | 8 | 49 | 16 | 63 | 206 | 6 | 50 | 166 | 246 | 24 | 3 | 122 | 26 | 39 | 358 | 68 | 24 | 39 | 133 | 91 | 26 | 13 | 4418 |
| | '41 | 15 | 16 | 9 | 51 | 11 | 118 | 76 | 8 | 90 | 53 | 66 | 160 | 80 | 39 | 16 | 40 | 101 | 10 | 16 | 28 | 49 | 60 | 13 | 12 | 2732 |
| | '40 | 11 | 5 | 13 | 67 | 9 | 132 | 41 | 9 | 136 | 52 | 86 | 105 | 9 | 21 | 24 | 72 | 110 | 18 | 31 | 12 | 39 | 53 | 29 | 2 | 2532 |
| | '39 | 4 | 2 | 5 | 22 | 4 | 37 | 13 | 1 | 37 | 31 | 22 | 176 | 2 | 14 | 7 | 22 | 47 | 5 | 6 | 16 | 10 | 42 | 9 | 4 | 1127 |
| | '38 | 10 | 4 | 12 | 79 | 9 | 56 | 24 | 8 | 54 | 42 | 32 | 86 | 3 | 15 | 12 | 16 | 78 | 4 | 18 | 16 | 20 | 23 | 48 | 5 | 1488 |
| | '37 | 8 | 1 | 1 | 21 | 2 | 9 | 5 | 1 | 53 | 18 | 33 | 28 | ... | 9 | 4 | 21 | 22 | 6 | 9 | 5 | 55 | 14 | 16 | 1 | 1027 |
| | '36 | 4 | 3 | 5 | 9 | 3 | 13 | 2 | 1 | 54 | 24 | 54 | 27 | 13 | 5 | 4 | 11 | 30 | 8 | 8 | 1 | 47 | 4 | 3 | 1 | 1033 |
| | '35 | 2 | 1 | 1 | 1 | 2 | 27 | 2 | 1 | 32 | 7 | 13 | 3 | ... | 2 | ... | 5 | 11 | 1 | 1 | 2 | 34 | 4 | 1 | 2 | 706 |
| | '34 | 1 | 2 | ... | 1 | ... | 1 | ... | ... | ... | 2 | ... | 1 | ... | 1 | ... | 1 | 2 | 1 | 1 | 1 | 4 | ... | 1 | ... | 93 |
| | Before '34 | 23 | 3 | 2 | 13 | 1 | 142 | 2 | 11 | 48 | 16 | 15 | 113 | 5 | 2 | 16 | 11 | 19 | 3 | 15 | 10 | 23 | 17 | 80 | 1 | 1135 |
| | Unid.* | 3 | 4 | ... | 104 | 10 | 17 | 3 | 12 | 5 | 15 | 2 | 23 | ... | ... | 10 | 12 | 19 | ... | 2 | 2 | 1 | 2 | 31 | 4 | 786 |
| | Total | 3818 | 527 | 738 | 3975 | 562 | 6322 | 6438 | 942 | 6519 | 5379 | 5266 | 7724 | 458 | 2941 | 3129 | 1949 | 10782 | 1523 | 1601 | 2706 | 2759 | 6982 | 3633 | 1451 | 178782 |
| MISC. | '50 | 46 | 3 | 33 | 125 | 32 | 249 | 96 | ... | 161 | 74 | 48 | 189 | 31 | 43 | 15 | 26 | 229 | 21 | 12 | 103 | 160 | 10 | 202 | 2 | 3700 |
| | '49 | 216 | 10 | 50 | 277 | 28 | 515 | 215 | 14 | 401 | 128 | 152 | 414 | 64 | 46 | 29 | 79 | 444 | 97 | 26 | 120 | 277 | 138 | 207 | 16 | 8955 |
| | '48 | 145 | 13 | 30 | 392 | 33 | 889 | 192 | 18 | 436 | 175 | 157 | 486 | 67 | 103 | 23 | 116 | 1036 | 69 | 32 | 160 | 252 | 286 | 226 | 7 | 10948 |
| | '47 | 85 | 7 | 54 | 318 | 41 | 842 | 222 | 20 | 356 | 141 | 219 | 638 | 93 | 83 | 27 | 58 | 966 | 71 | 42 | 128 | 295 | 196 | 232 | 23 | 10148 |
| | '46 | 56 | 16 | 20 | 277 | 34 | 700 | 306 | 10 | 297 | 89 | 129 | 314 | 9 | 69 | 19 | 82 | 371 | 35 | 33 | 136 | 223 | 89 | 167 | 4 | 8019 |
| | '45 | 21 | 9 | 10 | 45 | 15 | 293 | 110 | 1 | 81 | 28 | 91 | 126 | 14 | 11 | 3 | 16 | 133 | 8 | 16 | 38 | 111 | 14 | 108 | 1 | 3042 |
| | '44 | 4 | 7 | 14 | 10 | 9 | 107 | 87 | 4 | 26 | 15 | 38 | 69 | 9 | 1 | 4 | 11 | 36 | 4 | 2 | 14 | 57 | 1 | 49 | ... | 1325 |
| | '43 | 1 | 2 | ... | 16 | 5 | 66 | 10 | 1 | 12 | 7 | 15 | 63 | 6 | 2 | ... | 3 | 20 | 3 | ... | 8 | 24 | 2 | 14 | ... | 735 |
| | '42 | 26 | 5 | 12 | 52 | 4 | 159 | 56 | 11 | 73 | 48 | 77 | 102 | 26 | 51 | 7 | 20 | 148 | 17 | 10 | 28 | 97 | 19 | 53 | 3 | 2707 |
| | '41 | 35 | 6 | 23 | 96 | 11 | 328 | 157 | 5 | 162 | 53 | 81 | 213 | 78 | 64 | 5 | 36 | 227 | 23 | 13 | 55 | 174 | 65 | 97 | 4 | 4750 |
| | '40 | 24 | 7 | 32 | 117 | 7 | 461 | 194 | 6 | 154 | 49 | 46 | 150 | 42 | 56 | 6 | 28 | 185 | 9 | 12 | 41 | 121 | 35 | 104 | 5 | 4206 |
| | '39 | 34 | 1 | 7 | 65 | 1 | 223 | 110 | 5 | 138 | 37 | 38 | 168 | 21 | 45 | 5 | 24 | 138 | 11 | 9 | 30 | 58 | 52 | 90 | 3 | 2858 |
| | '38 | 16 | 7 | 7 | 86 | 6 | 311 | 67 | 13 | 118 | 28 | 27 | 215 | 14 | 25 | 3 | 25 | 97 | 3 | 8 | 31 | 76 | 57 | 67 | 5 | 2780 |
| | '37 | 45 | 9 | 15 | 145 | 7 | 467 | 109 | 18 | 208 | 78 | 73 | 201 | 17 | 49 | 32 | 33 | 132 | 11 | 20 | 42 | 122 | 89 | 155 | 4 | 4707 |
| | '36 | 39 | ... | 16 | 183 | 12 | 526 | 62 | 14 | 271 | 49 | 60 | 185 | 11 | 49 | 21 | 37 | 144 | 11 | 12 | 36 | 94 | 75 | 114 | 10 | 4384 |
| | '35 | 27 | 4 | 5 | 62 | 2 | 217 | 30 | 6 | 132 | 45 | 39 | 89 | ... | 39 | 13 | 17 | 113 | 8 | 5 | 24 | 91 | 36 | 92 | 2 | 2545 |
| | '34 | 17 | 2 | 10 | 23 | 13 | 223 | 23 | 5 | 117 | 26 | 27 | 67 | 13 | 28 | 2 | 16 | 49 | 4 | 7 | 20 | 48 | 34 | 55 | 2 | 1743 |
| | Before '34 | 404 | 39 | 91 | 484 | 16 | 1903 | 96 | 136 | 595 | 290 | 355 | 1464 | 116 | 95 | 158 | 131 | 578 | 43 | 120 | 98 | 871 | 173 | 837 | 41 | 21494 |
| | Unid.* | 41 | 19 | 9 | 312 | 17 | 244 | 167 | 9 | 88 | 74 | 161 | 68 | 14 | 20 | 11 | 141 | 341 | 7 | 1 | 10 | 42 | 41 | 201 | ... | 5058 |
| | Total | 1284 | 162 | 438 | 3080 | 295 | 8723 | 2413 | 301 | 3828 | 1434 | 1631 | 5222 | 679 | 681 | 383 | 924 | 4761 | 455 | 380 | 1112 | 3163 | 1302 | 3072 | 132 | 104102 |
| | Total All Makes | 113887 | 15493 | 28563 | 207200 | 42885 | 417801 | 191720 | 71410 | 327963 | 184716 | 123895 | 399219 | 30608 | 96286 | 66380 | 150490 | 514163 | 41133 | 24580 | 139923 | 153180 | 108957 | 187138 | 33358 | 7577025 |

Unid.*—Unidentified as to model year.

Data from the Reuben H. Donnelley Corp. are as of July 1, 1950.

## Trucks in Use by Makes and by Model Year*

*(As of July 1, 1950)*

| Model Year | Auto-car | Brock-way | Chev-rolet | Cres-ley | Dia-mond T | Divco | Dodge | Fed-eral | Ford | FWD | GMC | Inter-na-tional | Ken-worth | Mack | Pon-tiac | Reo | Ster-ling | Stude-baker | White | Willys | All Others | Total July 1, 1950 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1950 | 1,063 | 1,107 | 195,710 | 328 | 2,886 | 1,967 | 41,948 | 548 | 156,631 | 79 | 51,243 | 42,954 | 215 | 4,947 | 1,171 | 1,605 | 201 | 22,989 | 5,915 | 12,704 | 3,700 | 548,909 |
| 1949 | 1,468 | 1,472 | 324,270 | 679 | 4,526 | 3,488 | 106,830 | 915 | 199,326 | 215 | 71,118 | 95,765 | 306 | 6,481 | 1,806 | 3,347 | 192 | 74,914 | 7,240 | 27,590 | 8,965 | 947,963 |
| 1948 | 2,653 | 2,707 | 294,066 | 2,647 | 10,402 | 5,761 | 111,383 | 3,243 | 226,521 | 460 | 75,091 | 119,530 | 403 | 9,044 | ... | 11,058 | 400 | 29,442 | 10,854 | 56,792 | 10,946 | 983,383 |
| 1947 | 4,426 | 3,972 | 205,021 | 1,817 | 10,272 | 5,898 | 119,706 | 5,294 | 171,563 | 1132 | 47,852 | 115,055 | 481 | 12,070 | ... | 10,014 | 578 | 39,799 | 13,113 | 32,502 | 10,148 | 810,706 |
| 1946 | 4,524 | 3,516 | 251,558 | 58 | 5,023 | 4,178 | 111,345 | 3,736 | 164,608 | 729 | 25,504 | 84,401 | 339 | 4,071 | ... | 8,950 | 557 | 25,681 | 9,583 | 26,355 | 8,019 | 742,735 |
| 1945 | 2,211 | 1,968 | 32,860 | 7 | 3,068 | 1,752 | 19,469 | 1,726 | 40,879 | 333 | 11,838 | 26,923 | 321 | 4,508 | ... | 2,585 | 455 | 3,194 | 6,280 | 2,649 | 3,042 | 166,019 |
| 1944 | 1,165 | 1,009 | 15,180 | 1 | 1,483 | 907 | 6,875 | 739 | 16,593 | 139 | 6,015 | 14,001 | 104 | 2,884 | ... | 420 | 249 | 1,615 | 2,941 | 1,117 | 1,325 | 73,970 |
| 1943 | 221 | 91 | 2,544 | 7 | 202 | 94 | 1,971 | 301 | 7,421 | 28 | 2,400 | 3,332 | 31 | 403 | ... | 140 | 54 | 577 | 1,106 | 1,974 | 735 | 23,632 |
| 1942 | 788 | 283 | 87,171 | 68 | 1,436 | 591 | 38,027 | 782 | 69,238 | 166 | 22,489 | 26,820 | 68 | 2,492 | ... | 1,056 | 222 | 2,095 | 3,188 | 4,418 | 3,122 | 264,297 |
| 1941 | 2,287 | 1,937 | 185,793 | 67 | 4,876 | 2,576 | 73,394 | 1,927 | 157,760 | 317 | 39,529 | 77,203 | 160 | 7,936 | ... | 1,378 | 395 | 5,141 | 7,389 | 2,752 | 14,418 | 586,264 |
| 1940 | 1,219 | 1,123 | 146,834 | 18 | 4,327 | 1,697 | 48,072 | 839 | 114,647 | 163 | 28,187 | 57,566 | 125 | 5,397 | ... | 338 | 241 | 1,907 | 3,343 | 2,532 | 13,557 | 429,734 |
| 1939 | 1,169 | 1,148 | 110,550 | 9 | 3,208 | 1,455 | 38,264 | 849 | 82,796 | 245 | 19,441 | 45,872 | 96 | 4,396 | ... | 604 | 234 | 1,887 | 2,397 | 1,127 | 10,806 | 326,111 |
| 1938 | 795 | 747 | 75,025 | 12 | 2,424 | 967 | 23,680 | 525 | 62,196 | 147 | 11,239 | 36,051 | 50 | 2,546 | ... | 1,578 | 128 | 1,294 | 1,877 | 1,488 | 8,360 | 231,091 |
| 1937 | 969 | 814 | 120,484 | 12 | 3,924 | 589 | 38,116 | 715 | 109,633 | 222 | 23,864 | 37,371 | 90 | 2,852 | ... | 1,818 | 195 | 3,076 | 2,847 | 1,027 | 16,127 | 364,745 |
| 1936 | 603 | 818 | 98,666 | 9 | 3,386 | 463 | 45,575 | 806 | 103,509 | 211 | 11,307 | 33,938 | 135 | 1,774 | ... | 1,157 | 162 | 1,986 | 2,361 | 1,033 | 9,580 | 318,951 |
| 1935 | 356 | 320 | 84,173 | 2 | 1,880 | 157 | 21,880 | 443 | 75,093 | 128 | 2,430 | 18,996 | 56 | 774 | ... | 1,096 | 69 | 542 | 901 | 706 | 4,540 | 184,596 |
| 1934 | 363 | 231 | 41,445 | 1 | 1,290 | 113 | 12,184 | 376 | 50,036 | 69 | 1,594 | 7,442 | 41 | 708 | ... | 757 | 44 | 361 | 924 | 93 | 3,261 | 121,313 |
| Before '34 | 1,029 | 821 | 80,260 | 9 | 1,960 | 234 | 14,875 | 747 | 239,123 | 295 | 3,667 | 14,889 | 180 | 6,395 | ... | 3,351 | 549 | 2,336 | 2,744 | 1,138 | 24,858 | 408,316 |
| Unknown | 130 | 149 | 10,929 | 33 | 481 | 196 | 4,035 | 242 | 13,586 | 34 | 2,473 | 5,378 | 4 | 448 | 1,132 | 347 | 21 | 755 | 667 | 786 | 10,325 | 52,153 |
| Total | 27,399 | 23,931 | 2,341,539 | 5,797 | 67,024 | 32,467 | 877,714 | 23,623 | 2,061,330 | 5,112 | 457,312 | 963,281 | 3,205 | 79,626 | 3,809 | 51,645 | 4,896 | 218,291 | 85,670 | 176,782 | 184,574 | 7,577,037 |

*—Data from Reuben H. Donnelley Corp.

# EXPORTS

## U. S. Exports of New Motor Vehicles, 1920-1950

### In Units and Their Value and Including Lend-Lease

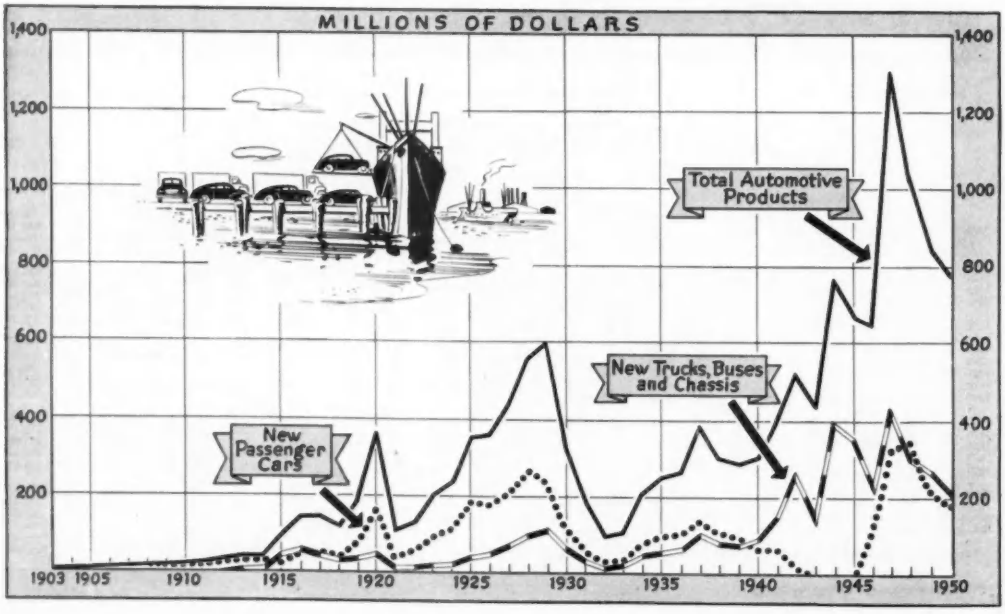
| YEAR | PASSENGER CARS Number | PASSENGER CARS Value | PASSENGER CARS % of U. S. Production (Units) | TRUCKS, BUSES AND CHASSIS Number | TRUCKS, BUSES AND CHASSIS Value | TRUCKS, BUSES AND CHASSIS % of U. S. Production (Units) | TOTAL MOTOR VEHICLES Number | TOTAL MOTOR VEHICLES Value | TOTAL MOTOR VEHICLES % of U. S. Production (Units) |
|---|---|---|---|---|---|---|---|---|---|
| 1920 | 142,508 | 165,255,921 | 7.5 | 29,136 | 46,775,781 | 9.1 | 171,644 | 212,031,702 | 7.7 |
| 1921 | 30,959 | 32,533,725 | 2.1 | 7,840 | 10,335,893 | 5.3 | 38,799 | 42,869,618 | 2.4 |
| 1922 | 66,791 | 51,049,816 | 2.9 | 11,443 | 8,270,708 | 4.2 | 78,234 | 59,320,524 | 3.0 |
| 1923 | 127,035 | 90,692,272 | 3.5 | 24,859 | 15,317,136 | 6.1 | 151,894 | 106,009,408 | 3.7 |
| 1924 | 151,380 | 112,534,729 | 4.7 | 27,352 | 19,199,344 | 6.6 | 178,732 | 131,734,073 | 4.9 |
| 1925 | 244,306 | 184,885,830 | 6.5 | 58,625 | 37,703,402 | 11.0 | 302,931 | 222,589,232 | 7.1 |
| 1926 | 238,540 | 176,432,157 | 6.3 | 66,880 | 47,176,107 | 21.1 | 305,420 | 223,608,264 | 7.1 |
| 1927 | 278,748 | 207,966,456 | 9.5 | 105,447 | 70,123,600 | 22.7 | 384,195 | 278,090,056 | 11.2 |
| 1928† | 375,428 | 269,393,369 | 9.8 | 140,191 | 93,006,070 | 25.8 | 515,619 | 362,399,439 | 11.8 |
| 1929 | 346,630 | 239,334,000 | 7.5 | 197,872 | 112,607,985 | 25.6 | 544,502 | 351,941,985 | 10.1 |
| 1930 | 159,464 | 110,355,978 | 5.7 | 85,666 | 56,861,119 | 14.9 | 245,130 | 167,217,097 | 7.3 |
| 1931 | 86,437 | 52,851,585 | 4.3 | 49,415 | 26,210,975 | 11.8 | 135,852 | 79,062,560 | 5.6 |
| 1932 | 44,282 | 25,502,047 | 3.8 | 25,532 | 12,142,681 | 10.8 | 69,814 | 37,644,728 | 5.1 |
| 1933 | 67,355 | 33,945,464 | 4.2 | 44,103 | 20,691,338 | 12.7 | 111,458 | 54,636,802 | 5.8 |
| 1934 | 148,387 | 80,604,563 | 6.8 | 93,766 | 45,125,359 | 16.3 | 242,153 | 125,729,922 | 3.7 |
| 1935 | 179,470 | 99,342,411 | 5.5 | 100,668 | 51,995,938 | 14.4 | 280,138 | 151,338,349 | 7.0 |
| 1936 | 186,542 | 107,483,285 | 5.1 | 108,167 | 56,765,713 | 13.7 | 294,709 | 164,248,998 | 6.6 |
| 1937 | 237,719 | 140,638,203 | 6.0 | 169,076 | 102,889,939 | 18.9 | 406,795 | 243,528,142 | 8.4 |
| 1938 | 167,693 | 104,628,982 | 8.4 | 117,943 | 74,451,986 | 24.1 | 285,636 | 179,080,968 | 11.4 |
| 1939 | 143,909 | 87,171,300 | 5.0 | 116,913 | 71,422,015 | 16.4 | 260,822 | 158,593,315 | 7.2 |
| 1940 | 88,806 | 57,253,737 | 2.6 | 103,459 | 87,867,077 | 13.7 | 192,265 | 145,120,814 | 4.5 |
| 1941 | 81,746 | 66,702,648 | 2.4 | 147,132 | 148,149,886 | 13.9 | 228,878 | 208,852,528 | 5.0 |
| 1942 | 13,821 | 13,199,744 | ‡ | 156,344 | 258,241,298 | 19.1 | 170,295 | 271,441,042 | ... |
| 1943 | 2,088 | 2,420,506 | ‡ | 74,847 | 145,772,195 | 10.7 | 76,935 | 148,192,611 | ... |
| 1944 | 1,649 | 2,784,433 | ‡ | 175,080 | 399,795,242 | 23.8 | 176,729 | 402,579,675 | ... |
| 1945 | 1,396 | 1,447,376 | 1.7 | 142,338 | 348,327,144 | 21.7 | 143,544 | 349,774,520 | 19.8 |
| 1946 | 116,984 | 122,500,568 | 5.4 | 167,980 | 225,929,505 | 17.8 | 284,974 | 348,430,073 | 9.2 |
| 1947 | 266,795 | 335,330,528 | 7.5 | 267,589 | 429,755,475 | 21.6 | 534,384 | 765,086,003 | 11.1 |
| 1948 | 217,911 | 279,837,012 | 5.6 | 204,831 | 343,160,170 | 14.8 | 422,742 | 709,592,487 | 8.9 |
| 1949 | 140,186* | 205,022,791 | 2.7 | 133,963* | 228,147,610 | 11.9 | 274,149* | 433,170,401 | 4.4 |
| 1950 | 119,719 | 178,550,596 | 1.8 | 130,176 | 216,029,884 | 9.7 | 249,895 | 394,580,480 | 3.1 |

‡ Taken from stockpiles. † From 1928 through 1941 exports include shipments to non-contiguous territories. * Does not include military vehicles for last six months of 1949.

NOTE—Prior to 1931 figures include used vehicles, but the effect of these used vehicles on per cent of production is negligible.

SOURCE—Transportation Equipment Division, National Production Authority, from records of the Bureau of the Census, Dept. of Commerce.

## 1950 AUTOMOTIVE EXPORTS VALUED AT $794,000,000



## U. S. Export of New Trucks and Chassis by G.V.W.‡

| | 1950 | | 1949 | |
|---|---|---|---|---|
| | Number | Value | Number | Value |
| **Gasoline** | | | | |
| 5,000 lb. and less | 39,856 | $43,680,292 | 45,337 | $54,149,620 |
| 5,001-10,000 lb. | 19,365 | 24,755,476 | 23,860 | 34,118,430 |
| 10,001-14,000 lb. | 11,244 | 15,066,580 | 13,897 | 20,053,978 |
| 14,001-16,000 lb. | 37,446 | 58,649,671 | 32,057 | 48,773,309 |
| 16,001-19,500 lb. | 8,706 | 19,357,515 | 9,034 | 21,933,845 |
| 19,501 and over | 5,871 | 21,938,195 | 4,749 | 23,181,873 |
| **Diesel and Semi-Diesel** | | | | |
| 19,500 lb. and less | 395 | 1,774,805 | 292 | 1,223,843 |
| 19,501 lb. and over | 1,379 | 8,254,572 | 570 | 5,868,032 |
| Total—All Trucks | 124,262 | $193,477,106 | 129,796 | $209,302,930 |

## U. S. Exports of Tires and Inner Tubes‡

| | 1950 | | 1949 | |
|---|---|---|---|---|
| | Number | Value | Number | Value |
| **Casings** | | | | |
| Truck and Bus | 696,698 | $27,191,228 | 1,181,720 | $45,599,866 |
| Passenger Car | 522,314 | 7,033,185 | 525,842 | 7,027,552 |
| Off-the-Road | 56,919 | 5,204,272 | 38,873 | 3,336,804 |
| Farm Tractors | 69,116 | 2,397,046 | 178,100 | 4,912,427 |
| Motorcycle | 5,075 | 39,855 | 7,845 | 70,433 |
| **Inner Tubes** | | | | |
| Car, Truck and Bus | 210,203 | 982,146 | 1,161,772 | 3,750,734 |
| Passenger Car | 180,777 | 409,039 | ..... | ..... |
| Truck and Bus | 182,439 | 734,823 | ..... | ..... |
| Other | 63,475 | 237,368 | 224,783 | 834,368 |
| Inner Tubes, n.e.s. | 70,678 | 199,077 | ..... | ..... |
| Total—Casings | 1,349,222 | $41,865,586 | 1,932,380 | $60,947,982 |
| Total—Inner Tubes | 807,572 | 2,562,453 | 1,386,555 | 4,858,102 |

## U. S. Exports of Automotive Products, 1947-1950‡

### Vehicles, Engines, Parts and Equipment

| | 1950 | | 1949 | | 1948 | | 1947 | |
|---|---|---|---|---|---|---|---|---|
| **Type of Product** | Number | Value | Number | Value | Number | Value | Number | Value |
| Passenger Car and Chassis, New | 119,719 | $178,550,596 | †140,186 | $205,022,791 | 217,911 | $279,837,012 | 266,795 | $335,330,528 |
| Passenger Car and Chassis, Used | 6,268 | 7,627,329 | 4,235 | 6,147,501 | 4,641 | 7,854,289 | 10,987 | 16,870,001 |
| Trucks, Buses and Chassis, New | 130,176 | 216,029,834 | †133,963 | 228,147,610 | 204,831 | 343,160,770 | 267,589 | 429,755,475 |
| Trucks, Buses and Chassis, Used | 3,172 | 4,101,368 | 2,989 | 4,151,393 | 2,226 | 3,524,560 | 7,980 | 17,094,701 |
| Trailers, n.e.s. | 2,613 | 2,881,889 | 3,059 | 4,647,659 | 6,093 | 6,719,248 | 19,151 | 21,452,245 |
| Motorcycles | 2,349 | 1,240,273 | 3,437 | 1,932,953 | 6,672 | 3,217,003 | 10,159 | 3,878,424 |
| Total—New and Used Vehicles | 264,303 | $410,431,339 | 287,869 | $450,049,907 | 442,374 | $644,322,882 | 582,661 | $824,381,372 |
| **ENGINES** | | | | | | | | |
| Diesel, truck and bus for assembly | 42 | 91,327 | 121 | 206,506 | 335 | 505,959 | 817 | 961,750 |
| Gasoline, truck and bus for assembly | 12,605 | 3,251,016 | 11,524 | 3,034,913 | 8,143 | 1,821,444 | 11,181 | 1,921,412 |
| Passenger car for assembly | 25,306 | 2,348,349 | 13,201 | 1,217,760 | 1,814 | 258,061 | 2,094 | 285,838 |
| Diesel for replacement | 1,255 | 1,832,769 | 1,263 | 2,140,129 | 1,135 | 1,490,685 | 2,112 | 2,060,133 |
| Gasoline for replacement | 19,746 | 5,015,242 | 15,353 | 3,640,183 | 12,291 | 2,859,261 | 16,552 | 3,348,983 |
| Marine, outboard | ..... | ..... | 12,389 | 1,873,851 | 12,302 | 1,783,555 | 43,639 | 4,403,259 |
| Other marine | ..... | ..... | 2,373 | 1,223,610 | 3,879 | 2,548,781 | 7,100 | 3,888,593 |
| Total—Engines | 58,954 | $13,538,703 | 56,224 | $13,336,952 | 39,899 | $11,267,746 | 83,495 | $16,869,968 |
| PARTS FOR ASSEMBLY | ..... | $112,240,214 | ..... | $95,892,603 | ..... | $86,474,518 | ..... | $84,251,946 |
| **REPLACEMENT PARTS** | | | | | | | | |
| Motorcycle parts and accessories | ..... | 922,634 | ..... | 976,856 | ..... | 984,915 | ..... | 994,023 |
| Spark plugs | 15,779,043 | 4,287,277 | 12,045,680 | 3,363,321 | 11,340,675 | 2,978,385 | 15,114,965 | 3,971,582 |
| Parts for replacement, Other, n.e.s. | ..... | 149,405,042 | ..... | 158,415,704 | ..... | 143,756,268 | ..... | 164,156,415 |
| Auto horns, hand and electric | 401,545 | 1,082,506 | 442,982 | 1,298,865 | 585,113 | 1,538,256 | 806,914 | 2,121,438 |
| Auto accessories, n.e.s. | ..... | 17,292,039 | ..... | 16,778,451 | ..... | 16,678,314 | ..... | 24,323,311 |
| Brake lining, molded and semi-molded, lbs.* | 3,502,730 | 2,686,954 | 3,086,024 | 2,641,045 | 2,601,413 | 2,238,135 | 3,308,517 | 2,907,716 |
| Brake lining, not molded, lin. ft.* | 532,358 | 342,542 | 763,961 | 479,645 | 681,364 | 404,085 | 949,449 | 552,244 |
| Brake blocks, molded and semi-molded, lbs.* | 438,663 | 397,147 | 284,200 | 275,293 | 238,853 | 188,368 | 570,080 | 448,214 |
| Brake blocks, woven, lbs.* | | | | | 223,282 | 26,809 | 54,386 | 45,951 |
| Clutch facings, molded and semi-molded, units* | 1,055,685 | 577,032 | 934,820 | 523,756 | 194,028 | 355,173 | 1,281,363 | 597,663 |
| Clutch facings, woven, units* | | | | | 373,979 | 195,764 | 355,037 | 197,025 |
| Starting, Lighting and Ignition Equipment* | ..... | 14,206,772 | ..... | 13,964,230 | ..... | 11,055,518 | ..... | 13,305,487 |
| Batteries, storage, 6 and 12 volt* | 453,678 | 5,676,827 | 470,839 | 6,602,796 | 622,198 | 7,284,940 | 606,166 | 6,631,115 |
| Belts, fan for automobiles, lbs. | ..... | ..... | ..... | ..... | 976,702 | 1,113,756 | 2,529,516 | 2,706,066 |
| Total—Replacement Parts | ..... | $196,876,772 | ..... | $205,319,962 | ..... | $188,798,686 | ..... | $222,958,255 |
| **GARAGE EQUIPMENT** | | | | | | | | |
| Auto Tire Service Equipment and Parts | ..... | 507,719 | ..... | 607,846 | ..... | 824,802 | ..... | 1,933,512 |
| Pumps for Gasoline and Oil | 10,314 | 2,188,154 | 11,819 | 2,707,624 | 20,820 | 3,295,412 | 31,905 | 3,939,696 |
| Service Appliances and Parts, Other | ..... | 12,091,937 | ..... | 12,924,261 | ..... | 13,763,940 | ..... | 19,757,608 |
| Total—Garage Equipment | ..... | $14,787,810 | ..... | $16,239,731 | ..... | $17,884,154 | ..... | $25,630,816 |
| **TIRES AND TUBES** | | | | | | | | |
| Casings, truck and bus | 696,698 | 27,191,228 | 1,181,720 | 45,599,866 | 1,154,456 | 50,082,524 | 1,930,331 | 76,190,044 |
| Casings, other automobile | 652,524 | 14,674,358 | 750,660 | 15,347,216 | 633,506 | 8,968,041 | 2,095,679 | 27,732,227 |
| Inner tubes for cars, trucks and buses | 807,572 | 2,562,453 | 1,386,555 | 4,585,102 | 1,201,459 | 4,445,408 | 2,978,396 | 10,440,833 |
| Tires, solid for cars and trucks | ..... | ..... | ..... | ..... | 111,232 | 3,092,000 | 271,490 | 6,717,979 |
| Tire sundries and repair material, Camelback, lb. | 2,432,336 | 713,083 | 1,883,666 | 541,203 | 1,395,244 | 397,160 | 6,888,664 | 1,692,256 |
| Other Tire sundries and repair materials, lb. | 2,323,845 | 1,864,600 | 1,933,368 | 1,243,451 | 1,861,596 | 947,065 | 5,423,489 | 2,629,818 |
| Total—Tires and Tubes, etc. | ..... | $47,005,722 | ..... | $67,316,838 | ..... | $67,932,198 | ..... | $125,403,157 |
| Total—All Products | ..... | $793,880,560 | ..... | $848,155,993 | ..... | $1,016,680,184 | ..... | $1,299,495,514 |

* For all uses.
† Excludes military vehicles for last six months.
‡ Compiled by Transportation Equipment Division, National Production Authority, from records of Bureau of the Census, Dept. of Commerce.

## U. S. Imports of New Passenger Cars*

| Imports from | 1950 Number | 1950 Value | 1949 Number | 1949 Value | 1948 Number | 1948 Value |
|---|---|---|---|---|---|---|
| Canada | 43 | $57,144 | 52 | $72,714 | 122 | $155,646 |
| Mexico | 4 | 7,222 | 3 | 7,775 | 2 | 1,745 |
| Bahamas | | | 1 | 1,009 | | |
| Sweden | 1 | 1,284 | | | 4 | 19,312 |
| United Kingdom | 19,442 | 19,015,756 | 7,209 | 8,266,741 | 26,228 | 27,026,866 |
| Netherlands | | | 1 | 3,964 | 3 | 9,392 |
| Belgium | 1 | 1,650 | 1 | 1,250 | | |
| France | 1,426 | 1,062,908 | 253 | 211,544 | 2,669 | 2,372,003 |
| Germany | 328 | 251,332 | 1 | 798 | 1 | 952 |
| Italy | 28 | 98,439 | 16 | 49,599 | 18 | 68,443 |
| Switzerland | | | 1 | 925 | | |
| Australia | | | 4 | 7,464 | | |
| Czechoslovakia | 14 | 15,366 | | | | |
| Total | 21,287 | $20,511,101 | 7,543 | $8,623,783 | 28,047 | $29,654,359 |

* Transportation Equipment Division, National Production Authority, Department of Commerce.

## U. S. Motorcycle Imports*

| Imports from | 1950 Number | 1950 Value | 1949 Number | 1949 Value | 1948 Number | 1948 Value |
|---|---|---|---|---|---|---|
| Mexico | | | 2 | $493 | 2 | $800 |
| Canada | 17 | $7,002 | 14 | 5,070 | 39 | 19,338 |
| Cuba | 1 | 525 | | | | |
| United Kingdom | 7,603 | 2,543,489 | 4,391 | 1,480,979 | 7,964 | 2,665,705 |
| Eire | 1 | 98 | | | | |
| Netherlands | 1 | 129 | 2 | 140 | 3 | 650 |
| Belgium | 6 | 1,516 | 9 | 3,779 | 7 | 3,738 |
| France | 142 | 10,813 | 199 | 19,710 | 24 | 4,604 |
| Germany | 636 | 160,581 | 35 | 12,279 | 29 | 5,211 |
| Austria | 45 | 10,330 | 148 | 45,022 | 190 | 39,349 |
| Czechoslovakia | 809 | 167,746 | 280 | 64,693 | 3,509 | 647,707 |
| Italy | 160 | 32,312 | 94 | 23,345 | 37 | 8,951 |
| China | 1 | 386 | | | | |
| Hong Kong | 1 | 50 | 1 | 440 | | |
| Japan | 1 | 425 | | | | |
| Tunisia | 1 | 200 | | | | |
| Union of South Africa | 1 | 300 | | | 1 | 300 |
| All other countries | | | 3 | 530 | 4 | 703 |
| Total | 9,426 | $2,935,902 | 5,178 | $1,656,480 | 11,809 | $3,397,056 |

* Transportation Equipment Division, National Production Authority, Department of Commerce.

## U. S. Imports for Consumption, 1939-1950

| Year | New Trucks Number | New Trucks Value | New Truck and Bus Chassis Number | New Truck and Bus Chassis Value | Other New Vehicles—Passenger Cars Number | Other New Vehicles—Passenger Cars Value | Other Used Vehicles or Chassis Number | Other Used Vehicles or Chassis Value | Total—New and Used Vehicles Number | Total—New and Used Vehicles Value |
|---|---|---|---|---|---|---|---|---|---|---|
| 1939 | | $ | 1 | $900 | 298 | $376,960 | 335 | $139,684 | 634 | $517,544 |
| 1940 | | | | | 253 | 401,214 | 302 | 140,207 | 555 | 541,421 |
| 1941 | 3 | 4,607 | | | 50 | 52,165 | 308 | 153,304 | 361 | 210,076 |
| 1942 | 26 | 205,214 | 1 | 800 | 25 | 19,333 | 372 | 174,832 | 424 | 400,179 |
| 1943 | 50 | 75,438 | 9 | 13,500 | 74 | 90,067 | 217 | 96,378 | 350 | 89,879 |
| 1944 | 26 | 81,876 | 1 | 1,845 | 11 | 14,639 | 298 | 161,657 | 336 | 260,017 |
| 1945 | 4 | 5,451 | 1 | 756 | 51 | 80,162 | 475 | 366,719 | 531 | 453,088 |
| 1946 | 8 | 11,711 | 7 | 8,328 | 1,374 | 1,415,127 | 574 | 365,218 | 1,963 | 1,800,384 |
| 1947 | 18 | 28,521 | 4 | 6,543 | 1,453 | 1,742,473 | 646 | 510,618 | 2,121 | 2,288,156 |
| 1948 | 423 | 520,007 | 261 | 219,537 | 28,047 | 29,654,359 | 381 | 357,959 | 29,112 | 30,751,862 |
| 1949 | 458 | 605,857 | 57 | 78,358 | 7,543 | 8,623,783 | 308 | 285,170 | 8,366 | 9,593,168 |
| 1950 | 65 | 143,339 | 16 | 15,231 | 21,287 | 20,511,101 | 321 | 275,905 | 21,689 | 20,945,676 |

## New Cars and Trucks are 50% of Total Automotive Exports

| | Passenger Cars | Trucks and Buses | Cars and Trucks | Parts and Accessories† | Rubber Tires and Tubes | Total Value of Exports† |
|---|---|---|---|---|---|---|
| 1930 | 109,990,336 | 56,957,246 | 166,947,582 | 125,022,350 | 34,936,061 | 326,905,993 |
| 1931 | 53,047,943 | 26,302,030 | 79,349,973 | 79,304,435 | 22,907,795 | 181,562,203 |
| 1932 | 25,614,606 | 12,214,163 | 37,828,769 | 45,014,472 | 10,593,358 | 93,436,599 |
| 1933 | 33,945,464 | 20,691,338 | 54,636,802 | 41,646,879 | 11,377,630 | 107,661,311 |
| 1934 | 80,603,633 | 45,125,359 | 125,728,992 | 72,894,468 | 13,647,144 | 212,270,604 |
| 1935 | 99,342,411 | 51,985,938 | 151,328,349 | 89,354,087 | 13,206,125 | 253,888,561 |
| 1936 | 107,483,285 | 56,683,828 | 164,167,113 | 91,329,409 | 13,938,409 | 269,434,931 |
| 1937 | 140,638,203 | 102,957,996 | 243,596,199 | 122,364,286 | 17,914,078 | 383,874,563 |
| 1938 | 104,628,982 | 74,490,036 | 179,119,018 | 107,613,293 | 15,871,265 | 302,603,576 |
| 1939 | 89,172,306 | 71,422,015 | 160,594,315 | 109,321,470 | 21,883,803 | 291,789,588 |
| 1940 | 63,766,211 | 91,324,669 | 155,100,880 | 117,173,166 | 27,520,815 | 299,794,861 |
| 1941 | 69,077,198 | 154,101,500 | 223,178,698 | 133,635,153 | 31,472,904 | 387,666,755 |
| 1942 | 13,784,618 | 263,861,311 | 277,745,928 | 158,779,416 | 46,765,430 | 483,230,774 |
| 1943 | 2,695,134 | 147,920,724 | 150,815,858 | 133,038,789 | 92,716,670 | 376,571,317 |
| 1944 | 3,693,981 | 401,587,626 | 405,211,607 | 245,609,659 | 61,379,255 | 712,200,521 |
| 1945 | 2,898,836 | 352,836,408 | 355,735,244 | 247,094,984 | 59,880,953 | 662,711,181 |
| 1946 | 122,500,568 | 227,748,532 | 350,249,100 | 207,418,991 | 73,767,045 | 631,435,136 |
| 1947 | 335,330,528 | 429,998,475 | 765,329,003 | 393,078,056 | 121,081,083 | 1,279,488,142 |
| 1948 | 279,837,012 | 343,160,770 | 622,997,782 | 316,102,194 | 66,587,973 | 1,005,687,949 |
| 1949 | 205,022,791 | 228,147,610 | 433,170,401 | 341,661,414 | 67,316,838 | 842,148,653 |
| 1950 | 178,550,596 | 216,029,834 | 394,580,430 | 352,294,358 | 47,005,722 | 793,880,560 |

† Includes used cars and trucks, trailers and motorcycles, parts for assembly and replacement and garage equipment.

# AVIATION DATA

## PRODUCTION • REGISTRATIONS • EXPORTS

### Aircraft and Aircraft Engine Production

| Year | Aircraft | | | | Aircraft Engines | | Value of All Products • |
|---|---|---|---|---|---|---|---|
| | Civil | Military | Total | Value | Number | Value | |
| 1927 | 1,386 | 609 | 1,995 | $14,594,999 | 1,400 | $9,493,000 | $30,897,000 |
| 1928 | 3,499 | 847 | 4,346 | .... | .... | .... | 64,662,000 |
| 1929 | 5,414 | 779 | 6,193 | 51,508,120 | 6,276 | 24,966,000 | 91,051,000 |
| 1930 | 2,601 | 836 | 3,437 | .... | .... | .... | 60,846,000 |
| 1931 | 1,947 | 853 | 2,800 | 21,790,000 | 3,794 | 13,779,000 | 48,540,000 |
| 1932 | 896 | 500 | 1,396 | .... | .... | .... | 34,861,000 |
| 1933 | 993 | 331 | 1,324 | 15,859,995 | 1,822 | 8,651,247 | 33,357,000 |
| 1934 | 1,222 | 393 | 1,615 | .... | .... | .... | 43,892,000 |
| 1935 | 1,374 | 336 | 1,710 | 17,454,331 | 2,866 | 12,616,285 | 42,506,000 |
| 1936 | 2,152 | 858 | 3,010 | .... | .... | .... | 78,149,000 |
| 1937 | 2,915 | 858 | 3,773 | 38,664,153 | 6,214 | 28,576,971 | 114,093,000 |
| 1938 | 2,698 | 925 | 3,623 | .... | .... | .... | 198,293,000 |
| 1939 | 4,935 | 921 | 5,856 | 75,872,587 | 11,172 | 74,282,000• | 247,905,000 |
| 1940 | 6,785 | 6,019 | 12,794 | 146,000,000 | 22,667 | 101,000,000• | 370,000,000 |
| 1941 | 6,844 | 19,433 | 26,277 | 819,000,000 | 58,181 | 436,000,000• | 1,804,000,000 |
| 1942 | n.p. | 47,836 | 47,836 | 2,762,000,000 | 138,089 | 1,314,000,000• | 5,817,000,000 |
| 1943 | n.p. | 85,898 | 85,898 | 6,696,000,000 | 227,116 | 2,226,000,000• | 12,514,000,000 |
| 1944 | n.p. | 96,318 | 96,318 | 9,233,000,000 | 256,911 | 3,075,000,000• | 16,047,000,000 |
| 1945 | 2,047 | 47,714 | 49,761 | 5,141,000,000 | 109,650 | 1,650,000,000• | 8,279,000,000 |
| 1946 | 35,001 | 1,669 | 36,670 | 362,772,192 | 43,407 | 126,860,393 | 629,595,722 |
| 1947 | 15,870 | 2,100 | 17,970 | 444,421,000 | 21,178 | 237,078,000 | 1,135,418,000‡ |
| 1948 | 7,302 | 2,489 | 9,791 | 114,207,590 | 9,032§ | 30,017,250§ | 221,638,143§ |
| 1949 | 3,545 | .... | 3,545 | 121,446,334§ | 3,982§ | 14,236,809§ | 224,063,865§ |
| 1950 | 3,520 | .... | 3,520 | 100,099,000§ | 4,315§ | 20,058,000§ | n.a. |

N.P.—No production other than military. •—War Production Board and Civilian Production Administration. §—Civil production only.
†—Sources: Odd years 1919 through 1939, as reported by Census of Manufacturers. Other year, various sources. Total units produced 1940-1949 as reported by Civil Aeronautics Administration and Bureau of the Census. Value of airframes 1940-1945, Department of Commerce.
‡—Includes aircraft and engines and parts for both. •—Value of aircraft, engines, parts, parachutes, etc. from C.A.A. and Census Bureau.
NOTE:—The values of engines, propellers and power plant accessories installed in the aircraft are not included in the value of the aircraft reported for 1931 to 1950.

### Shipments of Complete Civil Aircraft and Other Products of Their Plants, 1950-1949*

In Units and Their Value

| Month | Complete Aircraft: Number | | Complete Aircraft: Value | | Value of Aircraft Parts | | Value of Other Products | | Total Value of All Products | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1950 | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 | 1949 |
| January | 167 | 160 | $12,103,000 | $3,566,883 | $2,499,000 | $3,284,292 | $1,754,000 | $1,495,899 | $16,356,000 | $8,347,074 |
| February | 225 | 257 | 7,911,000 | 11,475,333 | 2,812,000 | 4,158,059 | 1,744,000 | 2,007,180 | 12,467,000 | 17,640,572 |
| March | 326 | 399 | 5,732,000 | 11,464,408 | 3,037,000 | 2,697,157 | 1,984,000 | 2,042,264 | 10,753,000 | 16,203,829 |
| April | 329 | 452 | 7,389,000 | 8,379,444 | 2,254,000 | 3,308,653 | 1,759,000 | 1,698,179 | 10,402,000 | 13,386,276 |
| May | 377 | 479 | 7,809,000 | 5,193,739 | 2,324,000 | 3,134,330 | 2,383,000 | 1,598,961 | 12,516,000 | 9,927,030 |
| June | 369 | 439 | 9,381,000 | 8,395,599 | 2,508,000 | 3,282,541 | 1,964,000 | 2,042,160 | 13,853,000 | 13,720,300 |
| July | 320 | 301 | 6,580,000 | 8,606,772 | 1,776,000 | 2,237,197 | 1,709,000 | 1,560,536 | 10,065,000 | 12,403,415 |
| August | 345 | 272 | 7,884,000 | 9,876,543 | 2,232,000 | 2,661,894 | 2,183,000 | 1,803,940 | 12,299,000 | 14,342,377 |
| September | 298 | 284 | 8,083,000 | 14,102,227 | 2,269,000 | 3,761,293 | 2,131,000 | 1,841,469 | 12,483,000 | 19,704,989 |
| October | 294 | 228 | 5,118,000 | 14,509,945 | 2,264,000 | 2,571,587 | 1,986,000 | 2,079,511 | 9,368,000 | 19,161,043 |
| November | 242 | 158 | 15,072,000 | 11,475,248 | 2,392,000 | 2,855,196 | 1,911,000 | 2,350,372 | 11,528,000 | 16,680,717 |
| December | 307 | 116 | 7,999,000 | 14,401,193 | n.a. | 3,584,781 | n.a. | 2,283,157 | n.a. | 20,269,131 |
| Total | 3,520 | 3,545 | $100,099,000 | $121,446,334 | $26,367,000‡ | $37,536,890 | $21,508,000 | $22,803,529 | $132,090,000‡ | $181,786,753 |

• Industry Division, Bureau of the Census and Civil Aeronautics Administration. n.a. Not available. ‡ 11 months total.

### Shipments of Civil Aircraft Engines and Other Products of Their Plants, 1950-1949*

In Units and Their Value

| Month | Civil Aircraft Engines: Number | | Civil Aircraft Engines: Value | | Value of Engine Parts | | Value of Other Products | | Total Value of All Products | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1950 | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 | 1949 |
| January | 266 | 264 | $1,804,000 | $1,351,488 | $3,297,000 | $1,732,690 | $211,000 | $151,119 | $5,312,000 | $3,235,297 |
| February | 208 | 469 | 1,232,000 | 1,478,652 | 2,945,000 | 1,901,277 | 157,000 | 118,124 | 4,364,000 | 3,498,053 |
| March | 357 | 504 | 1,784,000 | 1,163,978 | 3,954,000 | 2,226,939 | 176,000 | 297,456 | 5,856,000 | 3,687,473 |
| April | 479 | 602 | 1,733,000 | 1,120,697 | 2,967,000 | 2,149,631 | 188,000 | 126,615 | 4,888,000 | 3,396,943 |
| May | 337 | 477 | 2,143,000 | 1,364,579 | 3,864,000 | 2,100,726 | 366,000 | 233,481 | 6,373,000 | 3,698,786 |
| June | 432 | 364 | 2,015,000 | 1,116,431 | 3,529,000 | 2,672,850 | 228,000 | 375,903 | 5,772,000 | 4,159,184 |
| July | 376 | 286 | 1,748,000 | 1,060,200 | 3,519,000 | 1,817,557 | 209,000 | 440,811 | 5,476,000 | 3,318,568 |
| August | 392 | 282 | 1,048,000 | 739,855 | 3,293,000 | 1,457,978 | 186,000 | 349,325 | 4,527,000 | 2,547,158 |
| September | 415 | 200 | 1,264,000 | 1,170,247 | 3,078,000 | 1,926,959 | 153,000 | 375,813 | 4,495,000 | 3,473,019 |
| October | 340 | 174 | 850,000 | 1,050,735 | 3,237,000 | 1,976,257 | 158,000 | 428,576 | 4,245,000 | 3,455,568 |
| November | 350 | 192 | 1,840,000 | 963,708 | 3,562,000 | 1,942,285 | 130,000 | 354,958 | 5,532,000 | 3,260,951 |
| December | 365 | 168 | 2,627,000 | 1,662,239 | n.a. | 1,737,979 | n.a. | 1,145,894 | n.a. | 4,546,112 |
| Total | 4,317 | 3,982 | $20,058,000 | $14,236,809 | $37,245,000‡ | $23,642,228 | $2,164,000‡ | $4,398,075 | $56,840,000‡ | $42,277,112 |

• Industry Division, Bureau of the Census and Civil Aeronautics Administration. n.a. Not available. ‡ 11 months total.

# • AVIATION DATA •

## Personal and Transport Aircraft Shipments, 1950-1949*

In Units and Their Value

| Month | Personal Planes: Number 1950 | Personal Planes: Number 1949 | Personal Planes: Value 1950 | Personal Planes: Value 1949 | Transport Planes: Number 1950 | Transport Planes: Number 1949 | Transport Planes: Value 1950 | Transport Planes: Value 1949 | Total Civil Aircraft: Number 1950 | Total Civil Aircraft: Number 1949 | Total Civil Aircraft: Value 1950 | Total Civil Aircraft: Value 1949 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 157 | 151 | $1,018,000 | $936,784 | 10 | 9 | $11,085,000 | $2,630,099 | 167 | 160 | $12,103,000 | $3,566,883 |
| February | 217 | 226 | 1,101,000 | 1,189,788 | 8 | 31 | 6,810,000 | 10,285,545 | 225 | 257 | 7,911,000 | 11,475,333 |
| March | 322 | 376 | 1,516,000 | 1,876,418 | 4 | 23 | 4,216,000 | 9,587,990 | 326 | 399 | 5,732,000 | 11,464,408 |
| April | 322 | 426 | 1,480,000 | 2,138,844 | 7 | 16 | 4,909,000 | 6,240,600 | 329 | 452 | 6,389,000 | 8,379,444 |
| May | 370 | 461 | 1,939,000 | 1,916,994 | 7 | 18 | 5,876,000 | 3,282,755 | 377 | 479 | 7,809,000 | 5,193,739 |
| June | 358 | 430 | 2,022,000 | 1,848,133 | 11 | 9 | 7,359,000 | 6,547,466 | 369 | 439 | 9,381,000 | 8,395,599 |
| July | 311 | 563 | 1,853,000 | 2,380,878 | 9 | 10 | 4,727,000 | 16,101,437 | 320 | 301 | 6,580,000 | 8,605,772 |
| August | 331 | | 1,794,000 | | 14 | | 6,090,000 | | 345 | 272 | 7,884,000 | 9,876,543 |
| September | 286 | 271 | 1,517,000 | 1,318,575 | 12 | 13 | 6,566,000 | 12,783,652 | 298 | 284 | 8,083,000 | 14,102,227 |
| October | 198 | 216 | 1,243,000 | 1,114,544 | 6 | 12 | 3,875,000 | 13,395,401 | 204 | 228 | 5,118,000 | 14,509,945 |
| November | 215 | 143 | 1,295,000 | 746,137 | 12 | 15 | 5,930,000 | 10,729,111 | 227 | 158 | 15,072,000 | 11,475,248 |
| December | n.a. | 106 | n.a. | 639,050 | n.a. | 10 | n.a. | 13,762,143 | n.a. | 116 | 7,399,000 | 14,401,193 |
| Total | 3,087‡ | 3,379 | $16,778,000‡ | $16,100,125 | 100‡ | 166 | $67,437,000‡ | $105,436,199 | 3,520 | 3,545 | $100,099,000 | $121,446,334 |

* Industry Division, Bureau of the Census and Civil Aeronautics Administration. † Revised. n.a. Not available. ‡ 11 months total.

## Civil Aircraft Shipments—by Months—1950-1949*

Classified by Total Rated Hp and Number of Places

| Month | Total Rated Horsepower: 1-99 hp 1950 | 1-99 hp 1949 | 100-399 hp 1950 | 100-399 hp 1949 | 400 and Over hp 1950 | 400 and Over hp 1949 | Total Aircraft 1950 | Total Aircraft 1949 | Number of Places: 1-2 Places 1950 | 1-2 Places 1949 | 3-5 Places 1950 | 3-5 Places 1949 | Over 5 Places 1950 | Over 5 Places 1949 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 40 | 36 | 115† | 114 | 12 | 10 | 167 | 160 | 45 | 37 | 112 | 114 | 10 | 9 |
| February | 46 | 66 | 169 | 159 | 10 | 32 | 225 | 257 | 57 | 72 | 160 | 154 | 8 | 31 |
| March | 60 | 105 | 262 | 269 | 4 | 25 | 326 | 399 | 98 | 113 | 224 | 263 | 4 | 23 |
| April | 66 | 124 | 256 | 310 | 7 | 18 | 329 | 452 | 106 | 132 | 216 | 304 | 7 | 16 |
| May | 74 | 140 | 295 | 326 | 8 | 13 | 377 | 479 | 114 | 145 | 256 | 321 | 7 | 13 |
| June | 52 | 130 | 306 | 300 | 11 | 9 | 369 | 439 | 107 | 141 | 251 | 289 | 11 | 9 |
| July | 33 | 67 | 278 | 227 | 9 | 7 | 320 | 301 | 76 | 71 | 235 | 223 | 9 | 7 |
| August | 52 | 77 | 279 | 187 | 14 | 8 | 345 | 272 | 110 | 84 | 221 | 180 | 14 | 8 |
| September | 56 | 77 | 230 | 193 | 12 | 14 | 298 | 284 | 100 | 81 | 186 | 190 | 12 | 13 |
| October | 35 | 45 | 163 | 170 | 6 | 13 | 204 | 228 | 46 | 49 | 152 | 167 | 6 | 12 |
| November | 17 | 31 | 198 | 112 | 12 | 15 | 227 | 158 | 64 | 37 | 151 | 106 | 12 | 15 |
| December | n.a. | 32 | n.a. | 74 | n.a. | 10 | 307 | 116 | n.a. | 34 | n.a. | 72 | n.a. | 10 |
| Total | 531‡ | 930 | 2,551‡ | 2,441 | 105‡ | 174 | 3,520 | 3,545 | 923‡ | 996 | 2,164‡ | 2,383 | 100‡ | 166 |

* Industry Division, Bureau of the Census and Civil Aeronautics Administration. n.a. Not available. ‡ 11 months total.

## Registered Civil Aircraft by Manufacturer*

| Manufacturer | Number of Aircraft: Active | Inactive | Total | Per Cent of Total: Active | Inactive | Total |
|---|---|---|---|---|---|---|
| Piper | 12,994 | 5,973 | 18,967 | 20.8 | 19.9 | 20.5 |
| Aeronca | 8,133 | 3,472 | 11,605 | 13.0 | 11.6 | 12.6 |
| Consolidated Vultee(1) | 6,403 | 3,645 | 10,048 | 10.2 | 12.2 | 10.9 |
| Cessna | 7,748 | 2,365 | 10,113 | 12.4 | 7.9 | 10.9 |
| Taylorcraft | 4,577 | 2,146 | 6,723 | 7.3 | 7.2 | 7.3 |
| Luscombe | 3,659 | 1,172 | 4,831 | 5.8 | 3.9 | 5.2 |
| Fairchild | 2,221 | 2,206 | 4,427 | 3.6 | 7.4 | 4.8 |
| Ercoupe | 3,229 | 1,008 | 4,237 | 5.2 | 3.4 | 4.6 |
| Boeing(2) | 2,270 | 1,946 | 4,216 | 3.6 | 6.5 | 4.6 |
| Beech | 2,466 | 535 | 3,001 | 3.9 | 1.8 | 3.2 |
| All Others | 8,796 | 5,478 | 14,274 | 14.2 | 18.2 | 15.4 |
| Total | 62,496 | 29,946 | 92,442 | 100.0 | 100.0 | 100.0 |

(1)—Includes Stinson aircraft. (2)—Includes Stearman aircraft. *—Civil Aeronautics Administration.

## Registered Civil Aircraft*

By Leading States

| State | Number | % of Total |
|---|---|---|
| California | 10,508 | 11.4 |
| Texas | 6,912 | 7.5 |
| Illinois | 4,859 | 5.2 |
| New York | 4,438 | 4.8 |
| Michigan | 4,191 | 4.5 |
| Ohio | 4,154 | 4.5 |
| Pennsylvania | 4,080 | 4.4 |
| Kansas | 2,752 | 3.0 |
| Indiana | 2,743 | 3.0 |
| Florida | 2,516 | 2.7 |
| Iowa | 2,451 | 2.6 |
| Total | 49,604 | 53.6 |

*—Civil Aeronautics Administration.

## Employment in Complete Aircraft and Aircraft Engine Plants

| 1950 | Aircraft Plants: Total Plant Employees | Aircraft Plants: Production and Related Workers | Aircraft Plants: Other Plant Employees | Aircraft Engine Plants: Total Plant Employees | Aircraft Engine Plants: Production and Related Workers | Aircraft Engine Plants: Other Plant Employees |
|---|---|---|---|---|---|---|
| January | 163,531 | 119,812 | 43,719 | 29,837 | 28,003 | 11,834 |
| February | 162,741 | 119,262 | 43,479 | 40,035 | 28,121 | 11,914 |
| March | 162,846 | 118,887 | 43,959 | 40,272 | 28,421 | 11,851 |
| April | 164,998 | 120,113 | 44,885 | 40,472 | 28,574 | 11,898 |
| May | 165,273 | 121,247 | 44,026 | 40,687 | 28,574 | 11,898 |
| June | 166,773 | 122,103 | 44,670 | 41,425 | 29,471 | 11,954 |
| July | 169,230 | 123,164 | 46,066 | 41,836 | 29,802 | 12,084 |
| August | 180,186 | 131,937 | 48,249 | 42,169 | 30,404 | 11,765 |
| September | 191,649 | 141,171 | 50,478 | 39,410 | 27,950 | 11,460 |
| October | 200,729 | 148,051 | 52,678 | 45,499 | 33,342 | 12,157 |
| November | 211,864 | 156,859 | 55,005 | 48,274 | 35,476 | 12,798 |
| December | 222,091 | ..... | ..... | 50,638 | ..... | ..... |

# • AVIATION DATA •

## Registered Civil Aircraft*

By Engine Classifications

| Engine Type | Active | Inactive | Total | % of Total |
|---|---|---|---|---|
| Single-Engine | 58,817 | 27,716 | 86,533 | 94.44 |
| Two-Engine | 2,935 | 1,563 | 4,498 | 4.91 |
| Three-Engine | 16 | 7 | 23 | .02 |
| Four-Engine | 522 | 53 | 575 | .63 |
| Eight-Engine | 1 | .... | 1 | .... |
| Total | 62,291 | 29,339 | 91,630 | 100.00 |
| Unspecified | .... | 311 | 311 | .... |
| Gliders | 197 | 272 | 469 | .... |
| Lighter-than-air | 7 | 8 | 15 | .... |
| Balloons | 1 | 16 | 17 | .... |
| Total | 62,496 | 29,946 | 92,442 | .... |

* Civil Aeronautics Administration.

## Single-Engine Civil Aircraft*

By Hp Classification

| Take-Off Hp. | Active | Inactive | Total | % of Total |
|---|---|---|---|---|
| 50 and under | 672 | 1,193 | 1,865 | 2.16 |
| 51- 70 | 21,701 | 9,836 | 31,537 | 36.44 |
| 71- 100 | 15,969 | 5,112 | 21,081 | 24.36 |
| 101- 200 | 13,239 | 4,707 | 17,946 | 20.74 |
| 201- 350 | 4,349 | 3,716 | 8,065 | 9.32 |
| 351- 500 | 2,482 | 2,542 | 5,024 | 5.81 |
| 501- 700 | 365 | 560 | 925 | 1.07 |
| 701-1000 | 3 | 3 | 6 | .01 |
| 1001-1300 | 13 | 25 | 38 | .04 |
| 1301-1600 | 16 | 17 | 33 | .04 |
| 1601-2500 | 4 | 5 | 9 | .01 |
| 2501 and over | 4 | .... | 4 | .... |
| Total | 58,817 | 27,716 | 86,533 | 100.00 |

* Civil Aeronautics Administration.

## Two-Engine Civil Aircraft*

By Hp Classification

| Take-Off Hp. | Active | Inactive | Total | % of Total |
|---|---|---|---|---|
| 74- 449 | 125 | 41 | 166 | 3.69 |
| 450- 999 | 1,623 | 1,120 | 2,743 | 60.98 |
| 1,000-1,999 | 63 | 26 | 89 | 1.98 |
| 2,000-2,999 | 822 | 243 | 1,065 | 23.68 |
| 3,000-3,999 | 42 | 30 | 72 | 1.60 |
| 4,000 and over | 260 | 103 | 363 | 8.07 |
| Total | 2,935 | 1,563 | 4,498 | 100.00 |

* Civil Aeronautics Administration.

## Three-Engine Civil Aircraft

By Hp Classification

| Take-Off Hp. | Active | Inactive | Total | % of Total |
|---|---|---|---|---|
| 300- 700 | 3 | 4 | 7 | 30.43 |
| 701-1,000 | 8 | 1 | 9 | 39.13 |
| 1,001-1,725 | 3 | 2 | 5 | 21.74 |
| 1,726 and over | 2 | .... | 2 | 8.70 |
| Total | 16 | 7 | 23 | 100.00 |

## Four-Engine Civil Aircraft*

By Hp Classification

| Take-Off Hp. | Active | Inactive | Total | % of Total |
|---|---|---|---|---|
| 1,400-4,999 | 17 | 8 | 25 | 4.34 |
| 5,000-5,999 | 261 | 23 | 284 | 49.31 |
| 6,000-8,800 | 199 | 21 | 220 | 38.19 |
| 8,801 and over | 46† | 1 | 47† | 8.16 |
| Total | 523 | 53 | 576 | 100.00 |

† One Eight-Engine Aircraft. * Civil Aeronautics Administration.

## Civil Aircraft Registrations—Airports in Use*

| State | U. S. Civil Aircraft: July 1, 1950 | July 1, 1949 | January 1, 1948 | January 1, 1947 | Airports by Types, October 1950 [1]: Commercial | Municipal | CAA Intermediate | Military | All Others | Total Airports |
|---|---|---|---|---|---|---|---|---|---|---|
| Alabama | 919 | 1,003 | 998 | 908 | 27 | 34 | 0 | 16 | 13 | 90 |
| Arizona | 1,147 | 1,248 | 1,164 | 885 | 31 | 48 | 2 | 22 | 74 | 177 |
| Arkansas | 1,178 | 1,157 | 1,078 | 899 | 35 | 33 | 0 | 6 | 16 | 84 |
| California | 10,508 | 10,639 | 10,221 | 8,456 | 170 | 160 | 7 | 41 | 153 | 531 |
| Colorado | 1,306 | 1,370 | 1,313 | 1,088 | 30 | 55 | 2 | 3 | 14 | 104 |
| Connecticut | 686 | 730 | 755 | 635 | 21 | 10 | 0 | 0 | 1 | 32 |
| Delaware | 296 | 235 | 247 | 215 | 11 | 2 | 0 | 1 | 4 | 18 |
| District of Columbia | 542 | 877 | 933 | 986 | 0 | 0 | 0 | 2 | 1 | 3 |
| Florida | 2,516 | 2,989 | 2,907 | 2,572 | 42 | 93 | 1 | 46 | 6 | 188 |
| Georgia | 1,231 | 1,513 | 1,538 | 1,346 | 19 | 54 | 3 | 11 | 41 | 128 |
| Idaho | 897 | 816 | 718 | 545 | 14 | 69 | 2 | 1 | 48 | 134 |
| Illinois | 4,859 | 4,675 | 4,503 | 3,705 | 114 | 34 | 2 | 3 | 19 | 173 |
| Indiana | 2,743 | 2,772 | 2,718 | 2,269 | 109 | 33 | 1 | 4 | 8 | 155 |
| Iowa | 2,451 | 2,373 | 2,190 | 1,734 | 58 | 56 | 2 | 2 | 63 | 181 |
| Kansas | 2,752 | 3,099 | 2,719 | 2,410 | 50 | 99 | 1 | 6 | 34 | 190 |
| Kentucky | 830 | 888 | 835 | 686 | 30 | 15 | 1 | 2 | 16 | 64 |
| Louisiana | 1,099 | 1,057 | 984 | 760 | 14 | 30 | 2 | 4 | 24 | 74 |
| Maine | 645 | 641 | 605 | 491 | 27 | 25 | 0 | 2 | 9 | 63 |
| Maryland | 817 | 1,115 | 1,184 | 1,468 | 30 | 7 | 0 | 7 | 10 | 54 |
| Massachusetts | 1,376 | 1,454 | 1,454 | 1,255 | 46 | 23 | 0 | 4 | 2 | 75 |
| Michigan | 4,191 | 4,717 | 4,695 | 3,779 | 96 | 117 | 0 | 5 | 30 | 248 |
| Minnesota | 2,133 | 2,132 | 2,073 | 1,798 | 39 | 79 | 0 | 1 | 2 | 121 |
| Mississippi | 699 | 726 | 720 | 612 | 23 | 35 | 1 | 6 | 19 | 84 |
| Missouri | 2,114 | 2,432 | 2,404 | 2,171 | 47 | 50 | 1 | 1 | 14 | 113 |
| Montana | 1,122 | 956 | 845 | 656 | 15 | 71 | 8 | 1 | 19 | 114 |
| Nebraska | 1,855 | 1,697 | 1,534 | 1,139 | 42 | 68 | 1 | 1 | 27 | 139 |
| Nevada | 396 | 427 | 422 | 383 | 18 | 19 | 6 | 3 | 18 | 64 |
| New Hampshire | 280 | 318 | 304 | 244 | 16 | 12 | 0 | 1 | 6 | 35 |
| New Jersey | 1,725 | 1,670 | 1,650 | 1,393 | 67 | 14 | 0 | 5 | 5 | 91 |
| New Mexico | 767 | 806 | 785 | 617 | 20 | 33 | 8 | 7 | 31 | 99 |
| New York | 4,438 | 4,827 | 4,797 | 4,107 | 122 | 46 | 2 | 6 | 77 | 253 |
| North Carolina | 1,702 | 1,839 | 1,817 | 1,579 | 77 | 38 | 0 | 11 | 18 | 144 |
| North Dakota | 1,259 | 972 | 851 | 579 | 36 | 61 | 0 | 0 | 28 | 131 |
| Ohio | 4,154 | 4,672 | 4,789 | 4,448 | 175 | 37 | 5 | 4 | 26 | 247 |
| Oklahoma | 2,218 | 2,479 | 2,368 | 1,862 | 38 | 82 | 1 | 5 | 22 | 148 |
| Oregon | 1,803 | 1,771 | 1,619 | 1,227 | 34 | 41 | 2 | 0 | 42 | 119 |
| Pennsylvania | 4,080 | 4,557 | 4,393 | 3,838 | 160 | 44 | 2 | 5 | 9 | 220 |
| Rhode Island | 204 | 212 | 199 | 181 | 7 | 2 | 0 | 2 | 0 | 11 |
| South Carolina | 687 | 836 | 836 | 760 | 18 | 35 | 1 | 5 | 2 | 61 |
| South Dakota | 993 | 834 | 746 | 585 | 16 | 46 | 1 | 2 | 6 | 71 |
| Tennessee | 1,026 | 1,308 * | 1,306 | 1,216 | 29 | 23 | 1 | 2 | 9 | 64 |
| Texas | 6,912 | 8,148 | 8,347 | 7,789 | 142 | 165 | 5 | 49 | 264 | 625 |
| Utah | 542 | 549 | 542 | 468 | 8 | 35 | 6 | 3 | 5 | 57 |
| Vermont | 186 | 205 | 187 | 144 | 12 | 9 | 0 | 1 | 1 | 23 |
| Virginia | 1,369 | 1,483 | 1,437 | 1,220 | 66 | 23 | 2 | 14 | 20 | 125 |
| Washington | 2,226 | 2,182 | 2,043 | 1,616 | 51 | 71 | 3 | 11 | 44 | 180 |
| West Virginia | 649 | 685 | 660 | 567 | 26 | 14 | 2 | 0 | 14 | 56 |
| Wisconsin | 2,112 | 2,163 | 2,013 | 1,731 | 88 | 61 | 2 | 0 | 23 | 174 |
| Wyoming | 537 | 476 | 438 | 326 | 12 | 32 | 2 | 0 | 10 | 56 |
| Outside of U. S. | 1,265 | .... | 947 | 654 | .... | .... | .... | .... | .... | .... |
| Total | 92,442 | 96,730 | 94,821 | 81,002 | 2,378 | 2,243 | 94 | 328 | 1,348 | 6,391 |

[1] Airport type definitions: Commercial—Public use and public services, privately owned and operated. Municipal—Public use and public service, municipally owned and/or operated. CAA Intermediate—Public emergency use, no services, CAA operated. Military—Public restricted, military operated. All Others—Public emergency use only, no public services, privately owned for personal use.

* Civil Aeronautics Administration.

# U. S. Exports of Aeronautic Products, by Years, 1912-1950*

| | Aircraft | | Aircraft Engines | | Parts, Accessories and Equipment | Total Aeronautic Exports |
|---|---|---|---|---|---|---|
| | Number | Value | Number | Value | Value | Value |
| 1912 | 29 | $105,805 | .... | .... | .... | $105,805 |
| 1913 | 29 | 81,750 | .... | .... | $25,802 | 107,552 |
| 1914 | 24 | 188,924 | .... | .... | 37,225 | 226,149 |
| 1915 | 152 | 958,019 | .... | .... | 583,427 | 1,541,446 |
| 1916 | 269 | 2,158,395 | .... | .... | 4,843,610 | 7,002,005 |
| 1917 | 135 | 1,001,542 | .... | .... | 3,133,903 | 4,135,445 |
| 1918 | 61 | 768,720 | .... | .... | 18,017,781 | 18,786,501 |
| 1919 | 44 | 215,300 | .... | .... | 3,249,226 | 3,464,526 |
| 1920 | 65 | 598,274 | .... | .... | 554,375 | 1,152,649 |
| 1921 | 48 | 314,940 | .... | .... | 157,608 | 472,548 |
| 1922 | 37 | 156,630 | 147 | $72,819 | 265,481 | 494,930 |
| 1923 | 48 | 309,051 | 80 | 65,558 | 58,949 | 433,558 |
| 1924 | 59 | 412,738 | 146 | 219,609 | 165,926 | 798,273 |
| 1925 | 80 | 511,282 | 73 | 176,793 | 101,584 | 783,659 |
| 1926 | 50 | 303,149 | 297 | 573,732 | 150,329 | 1,027,210 |
| 1927 | 63 | 848,568 | 84 | 484,875 | 570,117 | 1,903,650 |
| 1928 | 162 | 1,759,653 | 179 | 664,826 | 1,240,244 | 3,664,723 |
| 1929 | 348 | 5,484,600 | 322 | 1,383,197 | 2,257,548 | 9,125,345 |
| 1930 | 221 | 4,819,669 | 376 | 1,634,985 | 2,363,456 | 8,818,110 |
| 1931 | 140 | 1,812,809 | 307 | 1,452,229 | 1,632,649 | 4,867,687 |
| 1932 | 280 | 4,358,967 | 2,356 | 1,517,682 | 1,736,421 | 7,946,533 |
| 1933 | 466 | 5,331,493 | 2,903 | 1,452,341 | 2,249,172 | 9,180,328 |
| 1934 | 490 | 8,195,484 | 1,009 | 4,458,791 | 4,860,567 | 17,622,938 |
| 1935 | 352 | 6,598,515 | 568 | 2,459,317 | 5,069,810 | 14,290,842 |
| 1936 | 527 | 11,691,893 | 932 | 5,182,469 | 6,060,483 | 23,143,203 |
| 1937 | 631 | 21,085,170 | 1,048 | 5,946,054 | 12,105,474 | 39,404,469 |
| 1938 | 876 | 37,977,924 | 1,309 | 7,899,844 | 21,948,982 | 68,227,689 |
| 1939 | 1,221 | 67,112,866 | 1,880 | 14,120,035 | 36,574,311 | 117,807,212 |
| 1940 | 3,531 | 196,265,646 | 4,986 | 49,873,823 | 65,732,004 | 311,871,473 |
| 1941 | 6,011 | 422,763,907 | 8,144 | 81,692,907 | 122,472,538 | 626,929,352 |
| 1942 | 14,603 | 882,247,253 | 14,603 | 160,575,340 | 352,123,928 | 1,394,946,521 |
| 1943 | 13,885 | 1,216,900,646 | 21,803 | 243,649,570 | 684,061,278 | 2,144,611,494 |
| 1944 | 24,489 | 1,657,692,974 | 25,751 | 335,085,521 | 833,150,100 | 2,825,928,595 |
| 1945 | 7,672 | 664,105,257 | 9,351 | 126,269,929 | 373,294,565 | 1,163,669,751 |
| 1946 | 2,406 | 65,293,732 | 2,490 | 11,851,372 | 38,178,056 | 115,323,160 |
| 1947 | 3,163 | 74,501,393 | 4,138 | 18,075,058 | 79,567,847 | 172,144,298 |
| 1948 | 2,262 | 66,358,190 | 3,924 | 14,337,146 | 76,118,924 | 156,814,260 |
| 1949 | 1,278 | 36,392,483 | 2,197 | 7,718,774 | 86,691,956 | 130,803,213 |
| 1950 | 760 | 44,334,220 | 205 | 198,678 | .... | .... |

* Compiled by Transportation Equipment Division, National Production Authority, from records of the Bureau of the Census.
Note: Data pertaining to U. S. Exports of Aeronautic Products for 1950 are largely restricted for security reasons.
[1] Includes some data for first six months only.

# U. S. Exports of Aeronautic Products*

## Segregated by Type of Product for 1947-1950

| Type of Product | 1950 Number | 1950 Value | 1949 Number | 1949 Value | 1948 Number | 1948 Value | 1947 Number | 1947 Value |
|---|---|---|---|---|---|---|---|---|
| **AIRCRAFT** | | | | | | | | |
| Airplanes, civil, new and used | 48 | $40,444,524 | 756 | $33,349,604 | 1,153 | $44,807,847 | 1,942 | $57,159,693 |
| Bombers | .... | .... | .... | .... | 40 | 547,000 | 38 | 457,500 |
| Fighters | .... | .... | 75 | 685,000 | 35 | 310,000 | 47 | 410,000 |
| Transports, new and used, cargo and passenger | .... | .... | 124 | 26,739,325[1] | 505 | 56,239,597 | 500 | 60,103,435 |
| Trainers | .... | .... | 278 | 4,456,673 | 476 | 2,467,084 | 563 | 5,131,844 |
| Miscellaneous aircraft | 671 | 2,901,951 | 14 | 1,930 | 3 | 50,000 | .... | .... |
| Gliders: Lighter-than-air, rotary wing | 41 | 987,745 | 31 | 1,179,951 | 50 | 1,936,662 | 73 | 1,238,921 |
| Total—Aircraft | 760 | $44,334,220 | 1,278 | $36,392,483 | 2,262 | $66,358,190 | 3,163 | $74,501,393 |
| AIRCRAFT ENGINES | 205 | $198,678 | 2,197 | $7,718,774 | 2,932 | $14,337,146 | 4,138 | $18,075,058 |
| **PARTS AND ACCESSORIES** | | | | | | | | |
| Engine parts and accessories | .... | .... | .... | $34,076,676 | .... | $28,509,469 | .... | $18,838,297 |
| Propellers | .... | .... | 1,943 | 2,912,433 | 1,983 | 1,848,867 | 2,479 | 1,975,795 |
| Propeller parts and accessories | .... | .... | .... | 2,775,848 | .... | 1,612,047 | .... | 1,553,331 |
| Direction and range finders | .... | .... | 50 | 150,457[1] | 46 | 10,439 | .... | 4,998,215 |
| Bomb sights and parts | .... | .... | .... | .... | .... | 1,373 | .... | .... |
| Parachutes and other aerial delivery equipment | .... | .... | .... | 131,128[1] | .... | 1,590,174 | .... | 10,941,700 |
| Radio transmitters and receiving sets | .... | .... | 1,123 | 491,746 | 3,401 | 1,362,479 | .... | .... |
| Radio ground equipment | .... | .... | .... | 725,754[1] | .... | 1,802,972 | .... | .... |
| Ground handling and maintenance equipment | .... | .... | .... | 2,165,441 | .... | 2,242,986 | .... | 2,631,716 |
| Aircraft parts and components | .... | .... | .... | 38,706,740 | .... | 33,021,055 | .... | 26,670,346 |
| Flight, operation and engine instruments | .... | .... | .... | 4,555,732 | .... | 4,150,217 | .... | 1,958,447 |
| Total—Parts and Accessories | .... | .... | .... | $86,541,499 | .... | $76,152,078 | .... | $79,567,847 |
| Total—Aeronautic Exports | .... | .... | .... | $130,803,213 | .... | $156,847,414 | .... | $172,144,298 |

* Machinery and Transportation Equipment Division, Office of Domestic Commerce from records of Bureau of Census.
[1] Data for first 6 months only.
Note: Data pertaining to U. S. Exports of Aeronautic Products for 1950 are largely restricted for security reasons.

# 1951 CAR PRICE, WEIGHT AND BODIES

*Following are prices at factory for cars with standard equipment as of February 26, 1951. State or local taxes, transportation and finance charges and optional equipment are extra.*

| BODY MAKE AND MODEL | List Price at Factory without Federal Taxes | Federal Taxes and Handling Charges | Delivered Price at Factory including Federal Taxes | Shipping Weight |
|---|---|---|---|---|
| **BUICK** | | | | |
| Special 40 | | | | |
| Bus. Coupe, 2d | 1680 | 123 | 1803 | |
| Spt. Coupe, 2d | 1730 | 126 | 1856 | |
| Sedan, 2d | 1760 | 128 | 1888 | |
| Sed. DeL., 2d | 1800 | 131 | 1931 | 3615 |
| Sedan, 4d | 1810 | 131 | 1941 | 3605 |
| Sed. DeL., 4d | 1850 | 133 | 1983 | 3680 |
| Sed. Rivra., 2d | 1885 | 135 | 2020 | |
| Conv. Cpe., 2d | 2175 | 150 | 2325 | |
| Super 50 | | | | |
| Sed. DeL., 2d | 1896 | 145 | 2041 | 3685 |
| Sed. Rivra, 2d | 1988 | 151 | 2139 | 3765 |
| Sed. DeL., 4d | 1989 | 150 | 2139 | 3755 |
| Sed. Rivra, 4d | 2058 | 154 | 2212 | 3845 |
| Conv. Cpe., 2d | 2308 | 168 | 2476 | 3965 |
| Est. Wagon, 4d | 2658 | 186 | 2844 | 4100 |
| R'dmaster 70 | | | | |
| Sed. Rivra, 4d | 2568 | 196 | 2764 | 4240 |
| Rivra Cpe., 2d | 2653 | 201 | 2854 | 4235 |
| Conv. Cpe., 2d | 2773 | 208 | 2981 | 4355 |
| Est. Wagon, 4d | 3203 | 230 | 3433 | 4470 |
| **CADILLAC** | | | | |
| Series 61 | | | | |
| Coupe, 2d | 2590 | 171 | 2761 | 3870 |
| Sedan, 4d | 2690 | 176 | 2866 | 3890 |
| Series 62 | | | | |
| Coupe | 2960 | 190 | 3150 | 4050 |
| Sedan | 3040 | 194 | 3234 | 4040 |
| Cpe. de Ville | 3315 | 208 | 3523 | 4120 |
| Conv. Coupe | 3440 | 214 | 3654 | 4340 |
| Series 60 | | | | |
| Sedan, 4d | 3565 | 132 | 3797 | 4200 |
| Series 75 | | | | |
| Sedan, 8p, 4d | 4480 | 290 | 4770 | 4690 |
| Imperial | 4660 | 299 | 4959 | 4710 |
| **CHEVROLET** | | | | |
| Styl. Spec. JJ | | | | |
| Bus. Coupe | 1240 | 89 | 1329 | 3040 |
| Sedan, 2d | 1310 | 93 | 1403 | 3095 |
| Spt. Coupe | 1315 | 93 | 1408 | 3060 |
| Sedan, 4d | 1355 | 95 | 1450 | 3130 |
| Fltn. Spec. JJ | | | | |
| Sedan, 2d | 1310 | 93 | 1403 | 3090 |
| Sedan, 4d | 1355 | 95 | 1450 | 3130 |
| Styl. DeL. JK | | | | |
| Sedan, 2d | 1385 | 97 | 1482 | 3110 |
| Spt. Coupe | 1400 | 98 | 1498 | 3115 |
| Sedan, 4d | 1430 | 99 | 1529 | 3140 |
| Bel Air Coupe | 1630 | 111 | 1741 | 3225 |
| Conv. Coupe | 1730 | 117 | 1847 | 3380 |
| Sta. Wag. Steel | 1870 | 124 | 1994 | 3470 |
| Fltn. DeL. JK | | | | |
| Sedan, 2d | 1385 | 97 | 1482 | 3125 |
| Sedan, 4d | 1430 | 99 | 1529 | 3155 |
| **CHRYSLER:** | | | | |
| Windsor 8 | | | | |
| Club Coupe | 2002 | 112 | 2114 | 3595 |
| Sedan, 4d, 6p | 2021 | 113 | 2134 | 3665 |
| Sedan, 4d, 8p | 2705 | 150 | 2855 | 4155 |
| Twn. and Cty. | 2591 | 144 | 2735 | |
| Wind. DeL 6 | | | | |
| Club Coupe | 2186 | 122 | 2308 | 3700 |
| Sedan, 4d, 6p | 2206 | 123 | 2329 | 3775 |
| Traveler, 4d, 6p | 2425 | 135 | 2560 | |
| Newport, 8p | 2498 | 139 | 2637 | 3855 |
| Conv. Cpe., 6p | 2598 | 143 | 2741 | 3945 |
| Sedan, 4d, 8p | 2890 | 160 | 3050 | 4295 |
| Limousine | 3010 | 166 | 3176 | |
| New Yorker 8 | | | | |
| Club Coupe | 2588 | 144 | 2732 | 4145 |
| Sedan, 4d, 6p | 2613 | 145 | 2758 | 4260 |
| Newport | 2969 | 164 | 3133 | 4330 |
| Conv. Coupe | 3089 | 169 | 3238 | 4460 |
| Imperial 8 | | | | |
| Club Coupe | | | | |
| Sedan, 4d | 2895 | 160 | 3055 | 4350 |
| Newport | | | | |
| Conv. Coupe | | | | |
| Crown Imp. | | | | |
| Sedan, 4d, 8p | 4970 | 259 | 5229 | |
| Limousine | 5070 | 264 | 5334 | |
| **CROSLEY** | | | | |
| Hotshot | 809 | 63 | 872 | 1175 |
| Sedan, DeL. | 818 | 64 | 882 | 1363 |
| Convertible | 818 | 64 | 882 | 1320 |
| **CROSLEY (Continued)** | | | | |
| Sta. Wagon | 849 | 67 | 916 | 1403 |
| Super Sports | 859 | 66 | 925 | |
| Sup. Sed., DeL. | 883 | 68 | 951 | |
| Sup. Conv. | 886 | 68 | 954 | |
| Sup. Sta. Wgn. | 914 | 70 | 984 | |
| **DE SOTO‡** | | | | |
| De Luxe | | | | |
| Club Coupe | 1871 | 105 | 1976 | 3475 |
| Sedan, 4d | 1881 | 105 | 1986 | 3570 |
| Carry-All | 2075 | 116 | 2191 | 3685 |
| Sedan, 8p | 2535 | 141 | 2676 | 4045 |
| Custom | | | | |
| Club Coupe | 2042 | 114 | 2155 | 3585 |
| Sedan, 4d, 6p | 2059 | 115 | 2174 | 3685 |
| Sportsman | 2358 | 131 | 2489 | 3760 |
| Convertible | 2443 | 135 | 2578 | 3840 |
| St. Wgn. Steel | 2574 | 143 | 2717 | 3960 |
| Sedan, 8p | 2713 | 150 | 2863 | 4155 |
| Suburban | 3013 | 168 | 3179 | 4395 |
| **DODGE‡** | | | | |
| Wayfarer, D41 | | | | |
| Coupe, 3p | 1525 | 86 | 1611 | 3125 |
| Roadster, 3p | 1635 | 92 | 1727 | |
| Sedan, 2d | | | | 3215 |
| Meadowb'k D42 | | | | |
| Sedan | 1750 | 98 | 1848 | 3415 |
| Coronet D42 | | | | |
| Club Coupe | 1812 | 102 | 1914 | 3320 |
| Sedan, 4d | 1825 | 102 | 1927 | 3415 |
| Conv. Coupe | 2206 | 123 | 2329 | 3580 |
| Sedan, 8p | 2479 | 138 | 2617 | |
| Diplomat | | | | |
| Sierra | | | | |
| **FORD** | | | | |
| Six | | | | |
| Bus. Coupe | 1236 | 97 | 1333 | 2960 |
| Tudor | 1323 | 102 | 1424 | 3005 |
| Fordor | 1368 | 104 | 1472 | 3075 |
| Custom 6 | | | | |
| Tudor | 1405 | 106 | 1511 | 3005 |
| Club Coupe | 1405 | 106 | 1511 | 2995 |
| Fordor | 1450 | 109 | 1559 | 3075 |
| Sta. Wagon | 1895 | 133 | 2028 | 3510 |
| Eight | | | | |
| Bus. Coupe | 1318 | 101 | 1419 | 3000 |
| Tudor | 1393 | 105 | 1498 | 3045 |
| Fordor | 1438 | 107 | 1545 | 3115 |
| Custom 8 | | | | |
| Tudor | 1480 | 110 | 1590 | 3045 |
| Club Coupe | 1485 | 110 | 1595 | 3035 |
| Fordor | 1525 | 112 | 1637 | 3115 |
| Crestliner | 1595 | | | 3065 |
| Conv. Coupe | 1820 | 128 | 1948 | 3275 |
| Sta. Wagon | 1970 | 137 | 2107 | 3550 |
| **FRAZER** | | | | |
| Sedan, 4d | 2221 | 138 | 2359 | 3535 |
| Vagabond | 2259 | 140 | 2399 | 3555 |
| **HENRY J** | | | | |
| Sedan, 2d, 4 cyl. | 1219 | 80 | 1299 | 2300 |
| Sedan, 2d, 6 cyl. | 1343 | 82 | 1429 | 2325 |
| **HUDSON:** | | | | |
| Pacemaker 6 | | | | |
| Coupe, 3p | 1773 | 140 | 1913 | |
| Brougham | 1900 | 147 | 2047 | 3475 |
| Sedan, 4d | 1940 | 149 | 2089 | 3510 |
| Club Cpe. | 1940 | 149 | 2089 | 3480 |
| Conv. Brghm. | 2400 | 173 | 2573 | |
| Super 6 | | | | |
| Brougham | 2029 | 151 | 2180 | 3565 |
| Sedan, 4d | 2074 | 154 | 2228 | 3590 |
| Club Cpe. | 2074 | 154 | 2228 | 3555 |
| Conv. Brghm. | 2572 | 181 | 2753 | 3750 |
| Commodore 6 | | | | |
| Club Cpe. | 2225 | 166 | 2391 | 3640 |
| Sedan, 4d | 2248 | 168 | 2416 | 3655 |
| Conv. Brghm. | 2738 | 195 | 2933 | 3840 |
| Commodore 8 | | | | |
| Club Cpe. | 2307 | 170 | 2477 | 3655 |
| Sedan, 4d | 2330 | 172 | 2502 | 3675 |
| Conv. Brghm. | 2820 | 199 | 3019 | 3865 |
| **HUDSON (Continued)** | | | | |
| Hornet | | | | |
| Club Cpe. | 2307 | 170 | 2477 | |
| Sedan, 4d | 2330 | 172 | 2502 | |
| Conv. Brghm. | 2820 | 199 | 3019 | |
| **KAISER** | | | | |
| Special | | | | |
| Bus. Coupe | 1784 | 115 | 1899 | |
| Club Coupe | 1917 | 122 | 2039 | |
| Sedan, 2d | 1936 | 123 | 2059 | |
| Sedan, 4d | 1983 | 126 | 2109 | 3180 |
| Traveler, 2d | 2031 | 128 | 2159 | |
| Traveler, 4d | 2078 | 131 | 2209 | |
| DeLuxe | | | | |
| Bus. Coupe | 1936 | 123 | 2059 | |
| Sedan, 2d | 2040 | 129 | 2169 | |
| Club Coupe | 2059 | 130 | 2189 | |
| Sedan, 4d | 2088 | 131 | 2219 | 3225 |
| Traveler, 2d | 2135 | 134 | 2269 | |
| Traveler, 4d | 2183 | 136 | 2319 | |
| **LINCOLN** | | | | |
| Coupe, 6p | 2350 | 179 | 2529 | 4140 |
| Spt. Sedan, 4d. | 2395 | 181 | 2576 | 4180 |
| Lido | 2535 | 186 | 2721 | 4160 |
| Cosmopolitan | | | | |
| Coupe | 2975 | 212 | 3187 | 4420 |
| Spt. Sedan | 3025 | 215 | 3240 | 4490 |
| Capri | 3185 | 221 | 3406 | 4440 |
| Convertible, 6p | 3700 | 250 | 3950 | 4690 |
| **MERCURY** | | | | |
| Coupe, 72A | 1745 | 130 | 1875 | 3395 |
| Coupe, 72B | 1845 | 135 | 1980 | 3485 |
| Spt. Sedan | 1895 | 137 | 2032 | 3550 |
| Monterey | 2005 | 141 | 2146 | 3530 |
| Monterey | 2015 | 142 | 2157 | 3530 |
| Convertible | 2255 | 157 | 2412 | 3760 |
| Sta. Wagon | 2397 | 164 | 2561 | 3900 |
| **NASH** | | | | |
| Rambler | | | | |
| Convertible | 1723 | 114 | 1837 | 2430 |
| Sta. Wagon | 1723 | 114 | 1837 | |
| Suburban | 1623 | 100 | 1723 | |
| Statesman | | | | |
| Bus. Coupe | 1596 | 114 | 1710 | 2900 |
| Super | | | | |
| Sedan, 2d | 1671 | 119 | 1790 | 2930 |
| Club Cpe. | 1693 | 119 | 1812 | 2940 |
| Sedan, 4d | 1696 | 119 | 1815 | 2965 |
| Custom | | | | |
| Sedan, 2d | 1821 | 128 | 1949 | |
| Club Cpe. | 1843 | 128 | 1971 | |
| Sedan, 4d | 1848 | 126 | 1974 | 2990 |
| Ambassador | | | | |
| Super | | | | |
| Sedan, 2d | 1997 | 140 | 2137 | 3325 |
| Club Cpe. | 2018 | 140 | 2158 | 3335 |
| Sedan, 4d | 2022 | 140 | 2162 | 3350 |
| Custom | | | | |
| Sedan, 2d | 2147 | 149 | 2296 | |
| Club Cpe. | 2168 | 149 | 2317 | |
| Sedan, 4d | 2172 | 149 | 2321 | 3390 |
| **OLDSMOBILE** | | | | |
| 88 | | | | |
| Sedan, 2d | 1788 | 135 | 1920 | 3507 |
| Sedan, 4d | 1840 | 138 | 1978 | 3542 |
| Sed. DeL. 2d | 1860 | 138 | 1998 | |
| Sed. DeL. 4d | 1915 | 141 | 2056 | |
| Super 88 | | | | |
| Club Cpe. DeL | 1895 | | | |
| Sed. DeL. 2d | 1935 | | | |
| Sed. DeL. 4d | 1990 | | | |
| Hol. Cpe. DeL | 2190 | | | |
| Conv. Cpe. DeL | 2290 | | | |
| 98 | | | | |
| Holiday Cpe. | 2225 | 158 | 2383 | 3782 |
| Sed. DeL. 4d | 2235 | 158 | 2393 | 3787 |
| Hol. Cpe. DeL | 2470 | 171 | 2641 | 3857 |
| Conv. Cpe. DeL | 2595 | 177 | 2772 | 4107 |
| **PACKARD** | | | | |
| 200-2401 | | | | |
| Bus. Coupe | 2060 | 135 | 2195 | 3550 |
| Club Sedan | 2166 | 139 | 2305 | 3600 |
| Tour. Sedan | 2214 | 141 | 2355 | 3665 |
| DeL. 200 | | | | |
| Club Sedan | 2299 | 146 | 2445 | 3605 |
| Tour. Sedan | 2347 | 148 | 2495 | 3660 |
| **PACKARD (Continued)** | | | | |
| 300-2402 | | | | |
| Tour. Sedan | 2718 | 179 | 2895 | 3930 |
| 400-2406 | | | | |
| Tour. Sedan | 3263 | 212 | 3495 | 4115 |
| **PLYMOUTH‡** | | | | |
| Concord P22 | | | | |
| Coupe, 3p | 1295 | 76 | 1371 | 2925 |
| Sedan, 2d | 1410 | 82 | 1492 | 2975 |
| Suburban | 1740 | 100 | 1840 | 3130 |
| Savoy | 1840 | 106 | 1946 | 3190 |
| Cambridge | | | | |
| P23 | | | | |
| Club Coupe | 1435 | 84 | 1519 | 3065 |
| Sedan, 4d | 1465 | 86 | 1551 | 3110 |
| Cranbrook | | | | |
| P22 | | | | |
| Club Coupe | 1515 | 88 | 1603 | 3080 |
| Sedan, 4d | 1540 | 89 | 1629 | 3115 |
| Conv. Cb. Cpe. | 1875 | 107 | 1982 | 3300 |
| **PONTIAC** | | | | |
| Chief. 8 | | | | |
| Bus. Coupe | 1527 | 113 | 1640 | 3273 |
| Sed. Coupe | 1644 | 119 | 1763 | 3303 |
| Sedan, 2d | 1644 | 119 | 1763 | 3328 |
| Sedan, 4d. | 1692 | 121 | 1813 | 3363 |
| DeL. Sed. Cpe. | 1734 | 124 | 1858 | 3318 |
| DeL. Sed., 2d. | 1734 | 124 | 1858 | 3333 |
| DeL. Sed., 4d. | 1782 | 126 | 1908 | 3373 |
| Catalina, DeL. | 1935 | 134 | 2069 | 3428 |
| Cat. Sup. DeL | 1990 | 137 | 2127 | 3433 |
| DeL. Conv. Cpe. | 2050 | 140 | 2190 | 3568 |
| Streaml. 8 | | | | |
| Sed. Cpe. | 1624 | 118 | 1742 | 3343 |
| DeL. Sed. Cpe. | 1714 | 123 | 1837 | 3348 |
| Sta. Wag. | 2185 | 147 | 2332 | 3698 |
| DeL. Sta. Wag. | 2280 | 151 | 2411 | 3628 |
| Chief. 6 | | | | |
| Bus. Cpe. | 1462 | 109 | 1571 | 3193 |
| Sed. Cpe. | 1579 | 115 | 1694 | 3223 |
| Sedan, 2d. | 1579 | 115 | 1694 | 3243 |
| Sedan, 4d. | 1627 | 118 | 1745 | 3273 |
| DeL. Sed. Cpe. | 1669 | 120 | 1789 | 3228 |
| DeL. Sed., 2d. | 1669 | 120 | 1789 | 3243 |
| DeL. Sed., 4d | 1717 | 123 | 1840 | 3273 |
| Catalina DeL | 1870 | 130 | 2000 | 3343 |
| Cat. Sup. DeL | 1925 | 133 | 2058 | 3353 |
| DeL. Conv. Cpe. | 1985 | 137 | 2122 | 3488 |
| Streaml. 6 | | | | |
| Sed. Cpe. | 1559 | 114 | 1673 | 3248 |
| DeL. Sed. Cpe. | 1649 | 119 | 1768 | 3263 |
| Sta. Wag. | 2120 | 144 | 2264 | 3603 |
| DeL. Sta. Wag. | 2195 | 148 | 2343 | 3523 |
| **STUDEBAKER** | | | | |
| Champ. Cust. | | | | |
| Coupe, 3p | 1370 | 101 | 1471 | 2585 |
| Sedan, 2d | 1435 | 105 | 1540 | 2670 |
| Coupe, 5p | 1460 | 106 | 1566 | 2650 |
| Sedan, 4d | 1465 | 107 | 1572 | 2690 |
| Champ. DeL | | | | |
| Coupe, 3p | 1445 | 104 | 1549 | 2610 |
| Sedan, 2d | 1510 | 108 | 1618 | 2690 |
| Coupe, 5p | 1535 | 109 | 1644 | 2675 |
| Sedan, 4d | 1540 | 110 | 1650 | 2715 |
| Champ. Regal | | | | |
| Coupe, 3p | 1520 | 109 | 1629 | 2615 |
| Sedan, 2d | 1585 | 112 | 1697 | 2690 |
| Coupe, 5p | 1610 | 113 | 1722 | 2675 |
| Sedan, 4d | 1615 | 114 | 1729 | 2715 |
| Conver ible | 1905 | 129 | 2034 | 2890 |
| Comm. Regal | | | | |
| Sedan, 2d | 1685 | 122 | 1807 | 3050 |
| Coupe, 5p | 1710 | 124 | 1834 | 3025 |
| Sedan, 4d | 1715 | 123 | 1838 | 3070 |
| Com. State | | | | |
| Sedan, 2d | 1780 | 127 | 1907 | 3050 |
| Coupe, 5p | 1805 | 129 | 1934 | 3025 |
| Sedan, 4d | 1810 | 129 | 1939 | 3070 |
| Land Cruiser | 1935 | 136 | 2071 | 3165 |
| Convertible | 2100 | 144 | 2244 | 3245 |
| **WILLYS** | | | | |
| Jeepster, 4 cyl. | 1290 | 53 | 1343 | 2459 |
| Jeepster, 6 cyl. | 1490 | 82 | 1572 | 2485 |
| Sta. Wgn., 4 cyl. | 1590 | 88 | 1678 | 2818 |
| Sta. Wgn., 6 cyl. | 1665 | 92 | 1757 | 2831 |
| Sta. Wgn., 4 WD | 1990 | 92 | 2082 | 3174 |

‡ Prices do not include delivery and handling charges. Note:—Since compilation of this table the OPS has allowed a 3½ per cent increase on the manufacturers list price, which was put into effect immediately by all companies.

# PASSENGER CAR ENGINE TRENDS

## (Averages for Passenger Cars and Their Engines—Based on Sales)

| | No. of Units Sold* | Gross Shipping Wgt. of Cars Sold (lb)† | Gross Max. Hp of Cars Sold‡ | Average Weight (lb) | Average Hp |
|---|---|---|---|---|---|
| 1930 | 2,625,979 | 7,320,000,000 | 142,800,000 | 2,780 | 54 |
| 1931 | 1,908,141 | 5,380,000,000 | 109,200,000 | 2,820 | 57 |
| 1932 | 1,096,399 | 3,200,000,000 | 75,400,000 | 2,920 | 69 |
| 1933 | 1,493,794 | 4,220,000,000 | 106,000,000 | 2,820 | 71 |
| 1934 | 1,888,557 | 5,560,000,000 | 156,000,000 | 2,940 | 83 |
| 1935 | 2,743,908 | 8,120,000,000 | 234,000,000 | 2,960 | 85 |
| 1936 | 3,404,497 | 10,190,000,000 | 291,000,000 | 3,000 | 86 |
| 1937 | 3,483,752 | 10,470,000,000 | 303,900,000 | 3,005 | 87 |
| 1938 | 1,891,021 | 5,743,000,000 | 169,200,000 | 3,035 | 89 |
| 1939 | 2,653,377 | 7,950,000,000 | 239,200,000 | 2,996 | 90 |
| 1940 | 3,415,905 | 10,511,000,000 | 312,100,000 | 3,077 | 91 |
| 1941 | 3,731,166 | 11,793,000,000 | 356,800,000 | 3,161 | 96 |
| 1946 | 1,815,196 | 599,600,000 | 181,200,000 | 3,303 | 100 |
| 1947 | 3,167,231 | 10,528,700,000 | 317,400,000 | 3,324 | 100 |
| 1948 | 3,490,952 | 11,552,200,000 | 352,600,000 | 3,309 | 100 |
| 1949 | 4,838,342 | 15,901,000,000 | 500,100,000 | 3,286 | 104 |
| 1950 | 6,326,438 | 20,624,200,000 | 660,400,000 | 3,260 | 104 |

†—Shipping weight of 5 passenger, 4 door sedan taken as typical and used in conjunction with new registrations of each model.

‡—Maximum horsepower taken from previous Statistical Issues and used in conjunction with new registrations of each model. *—R. L. Polk & Co. registrations of new passenger cars.

## Progress in Engine Design

(Average for Passenger Car Engines—Based on Number of Chassis Models Offered)

| Average Hp per Cu. in. of Displacement | Average Compression Ratio | Average B. M. E. P. at Maximum Hp. (lb. per sq. in.) | Bore, Stroke and Displacement | | |
|---|---|---|---|---|---|
| | | | Bore (In.) | Stroke (In.) | Disp. (Cu. In.) |
| 1930 .331 | 1930 5.15 | 1930 82.7 | 1930 3.26 | 4.51 | 264.6 |
| 1931 .344 | 1931 5.23 | 1931 84.3 | 1931 3.21 | 4.45 | 273.0 |
| 1932 .353 | 1932 5.29 | 1932 86.2 | 1932 3.26 | 4.41 | 283.9 |
| 1933 .376 | 1933 5.57 | 1933 88.5 | 1933 3.23 | 4.40 | 284.1 |
| 1934 .388 | 1934 5.72 | 1934 90.1 | 1934 3.24 | 4.40 | 289.2 |
| 1935 .398 | 1935 5.98 | 1935 90.2 | 1935 3.23 | 4.39 | 271.4 |
| 1936 .411 | 1936 6.14 | 1936 92.3 | 1936 3.39 | 4.32 | 267.9 |
| 1937 .417 | 1937 6.25 | 1937 93.1 | 1937 3.25 | 4.31 | 277.6 |
| 1938 .412 | 1938 6.32 | 1938 91.2 | 1938 3.25 | 4.27 | 271.1 |
| 1939 .415 | 1939 6.32 | 1939 92.7 | 1939 3.24 | 4.23 | 255.3 |
| 1940 .426 | 1940 6.41 | 1940 93.9 | 1940 3.25 | 4.17 | 254.0 |
| 1941 .431 | 1941 6.63 | 1941 96.7 | 1941 3.26 | 4.15 | 252.1 |
| 1942 .446 | 1942 6.60 | 1942 98.5 | 1942 3.26 | 4.18 | 251.8 |
| 1946 .440 | 1946 6.77 | 1946 94.6 | 1946 3.27 | 4.11 | 246.4 |
| 1947 .437 | 1947 6.73 | 1947 94.5 | 1947 3.28 | 4.18 | 250.4 |
| 1948 .437 | 1948 6.78 | 1948 95.3 | 1948 3.29 | 4.12 | 247.1 |
| 1949 .453 | 1949 6.93 | 1949 97.3 | 1949 3.35 | 4.10 | 250.0 |
| 1950 .455 | 1950 7.00 | 1950 98.6 | 1950 3.37 | 4.11 | 256.1 |
| 1951 .474 | 1951 7.09 | 1951 99.5 | 1951 3.40 | 4.00 | 250.4 |

| Average Piston Speeds (Ft. per Min.) | Average Disp. per Cylinder (Cu. In.) | Average Number of Cylinders | Average R.P.M. at Max. B.H.P. | Average Brake Horsepower |
|---|---|---|---|---|
| 1930 2380 | 1930 37.6 | 1930 7.04 | 1930 3170 | 1930 87.6 |
| 1931 2395 | 1931 36.8 | 1931 7.49 | 1931 3230 | 1931 95.0 |
| 1932 2390 | 1932 36.7 | 1932 7.78 | 1932 3250 | 1932 101.0 |
| 1933 2463 | 1933 36.0 | 1933 7.88 | 1933 3360 | 1933 106.5 |
| 1934 2508 | 1934 36.2 | 1934 7.97 | 1934 3420 | 1934 112.5 |
| 1935 2535 | 1935 36.1 | 1935 7.51 | 1935 3480 | 1935 109.6 |
| 1936 2498 | 1936 35.6 | 1936 7.50 | 1936 3487 | 1936 110.1 |
| 1937 2554 | 1937 35.8 | 1937 7.74 | 1937 3556 | 1937 115.9 |
| 1938 2545 | 1938 35.7 | 1938 7.60 | 1938 3576 | 1938 111.7 |
| 1939 2498 | 1939 35.1 | 1939 7.28 | 1939 3543 | 1939 105.9 |
| 1940 2490 | 1940 35.0 | 1940 7.25 | 1940 3580 | 1940 107.9 |
| 1941 2492 | 1941 35.2 | 1941 7.15 | 1941 3603 | 1941 110.9 |
| 1942 2534 | 1942 34.9 | 1942 7.20 | 1942 3638 | 1942 112.5 |
| 1946 2522 | 1946 35.4 | 1946 6.97 | 1946 3682 | 1946 108.4 |
| 1947 2550 | 1947 35.8 | 1947 7.00 | 1947 3660 | 1947 109.4 |
| 1948 2492 | 1948 35.6 | 1948 6.95 | 1948 3629 | 1948 107.9 |
| 1949 2522 | 1949 36.8 | 1949 6.80 | 1949 3690 | 1949 113.3 |
| 1950 2505 | 1950 37.2 | 1950 6.88 | 1950 3657 | 1950 116.6 |
| 1951 2505 | 1951 36.8 | 1951 6.80 | 1951 3758 | 1951 118.0 |

# 1951 PASSENGER CAR SPECIFICATIONS

## CHASSIS AND ENGINE SPECIFICATIONS

The specifications shown on pages 125 through 136 are only for the standard equipment included in Factory Delivered Price. Optional equipment shown in a few instances is at extra cost.

| Line Number | PASSENGER CAR MAKE AND MODEL | Wheelbase (In.) | Tread (In.) Front | Tread (In.) Rear | Overall Dimensions (In.) Length—Including Bumpers and Bumper Guards | Overall Dimensions (In.) Width | Overall Dimensions (In.) Height—Road to Roof No Load | Shipping Weight (Lb.)—Cheapest 5 Pass. 4 Door Sedan or Equivalent | Tire Size (In.) | ENGINE Valve Arrangement | Number of Cylinders Bore and Stroke (In.) | Total Piston Displacement (Cu. In.) | Taxable Horsepower | Max. Brake Hp. at Specified R.P.M. With Bare Engine | Max. Brake Hp. at Specified R.P.M. With Standard Accessories | Max. Torque (Lb. Ft.) at Specified R.P.M. With Bare Engine | Max. Torque (Lb. Ft.) at Specified R.P.M. With Standard Accessories | Standard Compression Ratio (to 1) | Compression Pressure Pressure (Lb.) | Compression Pressure At RPM | Weight per Cu. In.* 5 Pass. 4 Door Sedan | Weight per Hp. (Bare Engine) 5 Pass. 4 Door Sedan | Hp. (Bare Engine) per Cu. In. Disp. | BMEP (Lbs. per Sq. In.) | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Buick 8, 40 | 121½ | 59⅛ | 59 | 204⅜ | 76⅛ | 63⅜ | 3680 | 7.60/15 | 1 | 8-3⅛x4½ | 263.3 | 32.5 | 120-3600 | 115-3600 | 215-2000 | 212-2000 | 6.60 | 114 | CS | 15.88 | 34.83 | .456 | 100.27 | 1 |
| 2 | 8, 50 | 121½ | 59⅛ | 62⅜ | 206⅜ | 80 | 62 | 3755 | 7.60/15 | 1 | 8-3⅛x4½ | 263.3 | 32.5 | 124-3600 | 119-3600 | 220-2000 | 217-2020 | 6.90 | 118 | CS | 16.16 | 34.31 | .471 | 103.61 | 2 |
| 3 | 8, 70 | 126⅜ | 59⅛ | 62⅜ | 211 | 80 | 63⅜ | 4240 | 8.00/15 | 1 | 8-3⅛x4⅜ | 320.2 | 37.8 | 152-3600 | 144-3400 | 280-2000 | 274-2000 | 7.20 | 120 | CS | 14.80 | 31.18 | .475 | 104.43 | 3 |
| 4 | Cadillac V8, 61 | 122 | 59 | 63 | 211½ | 80½ | 61 | 3940 | 8.00/15 | 1 | 8-3⅛x3⅝ | 331.0 | 46.5 | 160-3800 | 141-3400 | 312-1800 | 297-1800 | 7.50 | 120-140 | CS | 13.41 | 27.75 | .484 | 100.60 | 4 |
| 5 | V8, 62 | 126 | 59 | 63 | 215½ | 80½ | 62½ | 4040 | 8.00/15 | 1 | 8-3⅛x3⅝ | 331.0 | 46.5 | 160-3800 | 141-3400 | 312-1800 | 297-1800 | 7.50 | 120-140 | CS | 13.71 | 28.38 | .484 | 100.60 | 5 |
| 6 | V8, 60 | 130 | 59 | 63 | 224½ | 80½ | 62½ | 4200 | 8.00/15 | 1 | 8-3⅛x3⅝ | 331.0 | 46.5 | 160-3800 | 141-3400 | 312-1800 | 297-1800 | 7.50 | 120-140 | CS | 14.20 | 29.38 | .484 | 100.60 | 6 |
| 7 | V8, 75 | 146¾ | 59 | 63 | 236½ | 80½ | 64½ | | 8.20/15 | 1 | 8-3⅛x3⅝ | 331.0 | 46.5 | 160-3800 | 141-3400 | 312-1800 | 297-1800 | 7.50 | 120-140 | CS | | | .484 | 100.60 | 7 |
| 8 | Chevrolet 6, JJ, JK | 115 | 56⅛ | 58⅜ | 197½ | 73½ | 65⅝ | 3130 | 6.70/15 | 1 | 6-3⅜x3⅝ | 216.5 | 29.4 | 92-3400 | 85-3300 | 176-(a) | 170-(a) | 6.60 | 110 | 125 | 16.75 | 39.45 | .425 | 98.99 | 8 |
| 9 | 6, 2100A | 115 | 56⅛ | 58⅜ | 197½ | 73½ | 65⅝ | 3300 | 6.70/15 | 1 | 6-3⅜x3⅝ | 235.5 | 30.4 | 105-3600 | 98-3500 | 193-(b) | 186-(c) | 6.70 | 110 | 125 | 16.16 | 36.20 | .446 | 98.09 | 9 |
| 10 | Chrysler 6, C-51 | 125½ | 56⅞ | 59⅛ | 207½ | 75½ | 64⅞ | 3665 | 7.60/15 | L | 6-3⅜x4½ | 250.6 | 28.4 | 116-3600 | | 208-1600 | | 7.00 | 120-150 | 150 | 16.65 | 35.95 | .463 | 101.84 | 10 |
| 11 | V8, C-52, C-54 | 131½ | 57⅛ | 57⅞ | 213¼† | 75½† | 65¼ | 4260 | 8.20/15 | I | 8-3⅛x3⅝ | 331.1 | 46.5 | 180-4000 | | 312-2000 | | 7.50 | 135-165 | 150 | 14.41 | 34.60 | .544 | 107.80 | 11 |
| 12 | V8, C-53 | 145½ | 57⅛ | 60 | 230¼ | 80½ | 68½ | 4350 | 8.90/15 | I | 8-3⅛x3⅝ | 331.1 | 46.5 | 180-4000 | | 312-2000 | | 7.50 | 135-165 | 150 | 14.68 | 34.75 | .544 | 107.80 | 12 |
| 13 | Crosley 4, CD, VC | 80 | 40 | 40 | 148¼ | 60 | 57 | 1363 | 4.50/12 | I | 4-2⅞x2¾ | 44.0 | 10.0 | | 26.5-5400 | | 32.5-3000 | 8.00 | 125-135 | 260 | 42.35 | 70.40 | .602 | 88.33 | 13 |
| 14 | De Soto 6, S-15 | 125½ | 56⅞ | 59⅞ | 208 | 74⅞ | 64⅞ | 3570 | 7.60/15 | L | 6-3⅜x4½ | 250.6 | 28.4 | 116-3600 | | 208-1600 | | 7.00 | 120-150 | 150 | 16.25 | 35.15 | .463 | 101.84 | 14 |
| 15 | Dodge 6, D-41 | 115 | 56⅞ | 59 | 199⅞ | 73 | 63½ | 3215 | 6.70/15 | L | 6-3⅜x4⅜ | 230.2 | 25.4 | 103-3600 | | 190-1200 | | 7.00 | 120-150 | 150 | 16.10 | 36.05 | .447 | 98.44 | 15 |
| 16 | 6, D-42 | 123½ | 56⅞ | 59 | 206⅞ | 74¼ | 64⅝ | 3415 | 7.10/15 | L | 6-3⅜x4⅜ | 230.2 | 25.4 | 103-3600 | | 190-1200 | | 7.00 | 120-150 | 150 | 16.98 | 38.00 | .447 | 98.44 | 16 |
| 17 | Ford 6, 1HA | 114 | 56 | 56 | 196½ | 72½ | 64½ | 3040 | 6.00/16 | L | 6-3.3x4.4 | 225.9 | 26.1 | 95-3600 | | 185-1500 | | 6.80 | 90-110 | 120 | 15.69 | 37.30 | .421 | 92.52 | 17 |
| 18 | V8, 1BA | 114 | 56 | 56 | 196½ | 72½ | 64½ | 3080 | 6.00/16 | L | 8-3⅛x3⅝ | 239.4 | 32.5 | 100-3600 | | 187-1800 | | 6.80 | 110 | 80 | 14.95 | 35.80 | .418 | 91.90 | 18 |
| 19 | Frazer 6, 515, 516 | 123½ | 58 | 58¾ | 211⅛ | | | 3535 | 7.10/15 | L | 6-3⅜x4⅜ | 226.2 | 26.3 | 115-3650 | | 190-1800 | | 7.30 | 120 | 70 | 17.81 | 35.05 | .508 | 110.30 | 19 |
| 20 | Henry J 4, 513 | 100 | 54 | 54 | 174 | | | 2300 | 5.90/15 | L | 4-3⅛x4½ | 134.2 | 15.6 | 68-4000 | | 109-1800 | | 7.00 | | | 20.81 | 41.15 | .506 | 100.33 | 20 |
| 21 | 6, 514 | 100 | 54 | 54 | 174 | | | 2325 | 5.90/15 | L | 6-3⅛x3⅜ | 161.0 | 23.4 | 80-3800 | | 133-1600 | | 7.00 | | | 17.59 | 35.39 | .496 | 103.56 | 21 |
| 22 | Hudson 6, 4A | 119⅞ | 58½ | 55½ | 201 | 77 | 60⅝ | 3510 | 7.10/15 | L | 6-3⅜x3⅞ | 232.0 | 30.4 | 112-4000 | | 175-1600 | | 6.70 | | | 17.30 | 35.82 | .483 | 95.59 | 22 |
| 23 | 6, 5A, 6A | 123½ | 58½ | 55½ | 206½ | 77 | 60⅝ | 3590 | 7.10/15 | L | 6-3⅜x4⅛ | 262.0 | 30.4 | 123-4000 | | 200-1600 | | 6.70 | | | 15.61 | 33.22 | .489 | 97.95 | 23 |
| 24 | 6, 7A | 123½ | 58½ | 55½ | 206½ | 77 | 60⅝ | | 7.10/15 | L | 6-3⅜x4½ | 308.0 | 34.9 | 145-3800 | | 257-1800 | | 7.20 | | | | | .470 | 98.12 | 24 |
| 25 | 8, 8A | 123½ | 58½ | 55½ | 206½ | 77 | 60⅝ | 3675 | 7.10/15 | L | 8-3x4½ | 254.0 | 28.8 | 128-4200 | | 196-1600 | | 6.70 | 119 | 125 | 16.45 | 32.62 | .504 | 95.03 | 25 |
| 26 | Kaiser 6, 511, 512 | 118½ | 58 | 58¾ | 210½ | 74 | | 3150 | 6.70/15 | L | 6-3⅛x4⅝ | 226.2 | 26.3 | 115-3650 | | 190-1800 | | 7.30 | 120 | 70 | 16.12 | 31.75 | .508 | 110.30 | 26 |
| 27 | Lincoln V8, 1EL | 121 | 58½ | 60 | 214½ | 76½ | 65⅞ | 4085 | 8.00/15 | L | 8-3⅛x4⅝ | 336.7 | 39.2 | 154-3600 | | 275-1800 | | 7.00 | 110 | | 13.60 | 29.73 | .457 | 100.62 | 27 |
| 28 | V8, 1EH | 125 | 58½ | 60 | 222½ | 78½ | 64½ | 4430 | 8.20/15 | L | 8-3⅛x4⅝ | 336.7 | 39.2 | 154-3600 | | 275-1800 | | 7.00 | 110 | | 14.62 | 32.00 | .457 | 100.62 | 28 |
| 29 | Mercury V8, 1CM | 118 | 58½ | 60 | 206½ | 76½ | 63 | 3470 | 7.10/15 | L | 8-3⅛x4 | 255.4 | 32.5 | 112-3600 | | 206-2000 | | 6.80 | 115 | | 15.56 | 35.43 | .439 | 97.48 | 29 |
| 30 | Nash 6, 5110 | 100 | 53¼ | 53 | 176 | 73½ | 59½ | 2430 | 5.90/15 | L | 6-3⅛x3⅝ | 172.6 | 23.4 | 82-3800 | | 138-1600 | | 7.25 | 120 | CS | 17.00 | 35.78 | .475 | 99.02 | 30 |
| 31 | 6, 5140 | 112 | 54½ | 59½ | 201 | 77½ | 63 | 2965 | 6.40/15 | L | 6-3⅛x4 | 184.0 | 23.4 | 85-3800 | | 140-1600 | | 7.00 | 120 | CS | 18.84 | 40.75 | .462 | 96.26 | 31 |
| 32 | 6, 5160 | 121 | 54½ | 60½ | 211 | 77½ | 63½ | 3350 | 7.10/15 | I | 6-3⅜x4⅜ | 234.8 | 27.3 | 115-3400 | | 210-1600 | | 7.30 | 130 | CS | 16.41 | 33.50 | .489 | 114.09 | 32 |
| 33 | Oldsmobile V8, 88 | 119½ | 57 | 58 | 202 | 75½ | 64½ | 3531 | 7.60/15 | I | 8-3⅛x3⅜ | 303.7 | 45.0 | 135-3600 | 129-3600 | 263-1800 | 255-1800 | 7.50 | 130-150 | 150 | 13.23 | 29.78 | .445 | 97.79 | 33 |
| 34 | V8, 98 | 122 | 59 | 61½ | 208 | 80½ | 62½ | 3872 | 7.60/15 | I | 8-3⅛x3⅜ | 303.7 | 45.0 | 135-3600 | 129-3600 | 263-1800 | 255-1800 | 7.50 | 130-150 | 150 | 14.06 | 31.63 | .445 | 97.79 | 34 |
| 35 | Packard 8, 200 | 122 | 59½ | 60½ | 209½ | 77½ | 62½ | 3660 | 7.60/15 | L | 8-3⅛x3⅝ | 288.0 | 39.2 | 135-3600 | | 230-2000 | | 7.00 | | | 14.47 | 30.82 | .469 | 103.12 | 35 |
| 36 | 8, 300 | 127 | 60 | 61½ | 217½ | 77½ | 62½ | 3980 | 8.00/15 | L | 8-3⅛x4⅛ | 327.0 | 39.2 | 150-3600 | | 270-2000 | | 7.00 | | | 13.70 | 29.88 | .459 | 100.92 | 36 |
| 37 | 8, 400 | 127 | 60 | 61½ | 217½ | 78½ | 62½ | 4180 | 8.00/15 | L | 8-3⅛x4⅛ | 327.0 | 39.2 | 155-3600 | | 275-2000 | | 7.00 | | | 14.32 | 30.30 | .474 | 104.28 | 37 |
| 38 | Plymouth 6, P-22 | 111 | 55⅞ | 58½ | 188½ | 73 | 62½ | 2975 | 6.40/15 | L | 6-3⅛x4⅛ | 217.8 | 25.4 | 97-3600 | | 175-1200 | | 7.00 | 120-150 | 150 | 15.96 | 35.82 | .445 | 97.20 | 38 |
| 39 | 6, P-23 | 118½ | 55⅞ | 58½ | 193½ | 73⅝ | 64¾ | 3110 | 6.70/15 | L | 6-3⅛x4⅛ | 217.8 | 25.4 | 97-3600 | | 175-1200 | | 7.00 | 120-150 | 150 | 16.57 | 37.22 | .445 | 97.20 | 39 |
| 40 | Pontiac 6, 1951-25 | 120 | 58½ | 59½ | 202½ | 75½ | 65¼ | 3304 | 7.10/15 | L | 6-3⅜x4 | 239.2 | 30.4 | 96-3400 | 90-3400 | 191-1200 | 186-1000 | 6.50 | 127 | 200 | 15.91 | 39.62 | .402 | 93.49 | 40 |
| 41 | 8, 1951-27 | 120 | 58½ | 59½ | 202½ | 75½ | 65⅜ | 3389 | 7.10/15 | L | 8-3⅛x3⅜ | 268.4 | 36.4 | 116-3600 | 108-3400 | 220-2000 | 211-2000 | 6.50 | 127 | 200 | 14.49 | 33.58 | .431 | 95.08 | 41 |
| 42 | Studebaker 6, 10G | 115 | 56½ | 54 | 197½ | 70½ | 61¼ | 2730 | 6.40/15 | L | 6-3x4 | 169.6 | 21.6 | 85-4000 | | 138-2400 | | 7.00 | 120-140 | 150 | 19.08 | 38.90 | .501 | 99.23 | 42 |
| 43 | V8, H | 115-119 | 56½ | 54 | 197½♦ | 70½ | 61¾ | 3255 | 7.10/15 | I | 8-3⅛x3½ | 232.6 | 36.4 | 120-4000 | | 190-2000 | | 7.00 | 120-140 | 150 | 16.11 | 31.26 | .515 | 102.15 | 43 |
| 44 | Willys 4, 473-SD | 104 | 55½ | 57 | 176¼ | 72 | 72½ | 2818● | 6.50/15 | F | 4-3½x4⅜ | 134.2 | 15.6 | 72-4000 | | 114-2000 | | 7.40 | 135 | 185 | 24.70 | 46.91 | .536 | 108.23 | 44 |
| 45 | 6, 673-SD | 104 | 55¼ | 57 | 176¼ | 72 | 72½ | 2831● | 6.70/15 | L | 6-3⅛x3½ | 161.0 | 23.4 | 75-4000 | | 125-2000 | | 6.90 | 145 | 185 | 20.65 | 44.40 | .486 | 92.24 | 45 |

**ABBREVIATIONS**

□—Two door sedan
♦—Land Cruiser—201½ in.
▲—With load
†—C-54, 75⅝.
‡—C-54, 212⅝.
■—Model 6A—77½ in.
△—Convertible coupe
*—Based on hp with accessories
●—Station wagon
*—All weight calculations are based on shipping weight plus an allowance of 500 lb for passengers, water, gasoline and oil
♦—Powerglide chassis model available at extra cost
(a)—1000 to 2000 rpm
(b)—1100 to 2200 rpm
(c)—1200 to 1800 rpm
CS—Cranking speed
F—Valves in block and head
I—Valves in head
L—Valves in block

***For Directory of the Manufacturers listed above, see page 190.***

1951 PASSENGER CARS

# PISTONS, RINGS AND CONNECTING RODS

| Line Number | PASSENGER CAR MAKE AND MODEL | Number of Cylinders Bore and Stroke (In.) | PISTONS | | | | | | | | PISTON RINGS | | | | | | | | WRIST PIN | | | | | CONNECTING RODS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Average Clearance (In.) | | Ring Groove Depth (In.) | | Oil | | | | Compression | | | | Expanders Used— | | | | | | | | |
| | | | Make | Material | Features | Weight (Oz.) Without Rings, Pin and Bushing | Length (In.) | Top Land | Bottom of Skirt | Oil | Compression | Number Used | Width (In.) | Average Gap (In.) | Maximum Wall Thickness (In.) | Number Used | Width (In.) | Average Gap (In.) | Maximum Wall Thickness (In.) | | Length (In.) | Diameter | Locked In— | Average Clearance, in Piston (In.) | Length (In.), Center to Center | Materials (S.A.E. No.) | Weight (Oz.) | |
| 1 | Buick ..... 8, 40 | 8-3 1/16x4 1/2 | Var | Ala | Trs, Tt, C | 13.44 | 3.760 | .0230 | .0012 | .165 | .165 | 2 | (a) | (b) | (e) | 2 | .0938 | .015 | .160 | N | 2.688 | .8127 | R | .00035 | 7 1/8 | 1145 | 28.10 | 1 |
| 2 | ..... 8, 53 | 8-3 1/16x4 1/2 | Var | Ala | An, Trs, Tt, C | 13.44 | 3.760 | .0230 | .0012 | .165 | .165 | 2 | (a) | (b) | (e) | 2 | .0938 | .015 | .160 | N | 2.688 | .8127 | R | .00035 | 7 1/8 | 1145 | 28.10 | 2 |
| 3 | ..... 8, 70 | 8-3 1/16x4 1/2 | Var | Ala | An, Trs, Tt, C | 17.94 | 4.560 | .0300 | .0014 | .182 | .182 | 2 | (a) | (f) | (g) | 2 | .0938 | .015 | (h) | N | 3.062 | .8747 | R | .00035 | 8 1/4 | 1145 | 36.27 | 3 |
| 4 | Cadillac ..... V8, 61, 62, 60, 75 | 8-3 1/16x3 5/8 | A-B | Ala | Ts, Sf | 18.75 | 3.938 | .0330 | .0000 | .187 | .187 | 1 | .1875 | .015 | .150 | 2 | .0781 | .015 | .184 | Oi | 3.094 | 1.000 | R | .00018 | 6 1/16 | 1041 | 23.95 | 4 |
| 5 | Chevrolet ..... 6, JJ, JK | 6-3 1/16x3 5/8 | Own | Cl | O, Ss, Fh | 28.00 | 3.750 | .0195 | .0022 | .176 | .157 | 1 | .1862 | .010 | .155 | 2 | .1238 | .010 | .155 | N | 3.150 | .8648 | R | ..... | 6 1/16 | FS | 31.20 | 5 |
| 6 | ..... 6, 2100A | 6-3 7/16x3 1/2 | Own | Cl | O, Ss, Fh | 32.00 | 3.750 | .0190 | .0022 | .176 | (t) | 1 | .1862 | .010 | .160 | 2 | (u) | (v) | (w) | N | 3.150 | .8648 | R | ..... | 6 1/16 | FS | 31.20 | 6 |
| 7 | Chrysler ..... 6, C-51 | 6-3 1/16x4 1/2 | Own | Ala | Ua, C, Tp | 18.50 | 3.875 | .0305 | .0007 | .178 | .178 | 2 | .1562 | .011 | .150 | 2 | .0938 | .011 | .169 | N | 2.875 | .8594 | F | .00025 | 7 1/16 | MFS | 32.40 | 7 |
| 8 | ..... V8, C-52, C-53, C-54 | 8-3 1/16x3 5/8 | Own | Ala | St, Ss, C, Tp | 20.80 | 3.875 | .0225 | .0010 | .188 | .204 | 1 | .1875 | .015 | .165 | 2 | .0781 | .015 | .191 | N | 3.1406 | .9844 | F | .00025 | 6 1/16 | MFS | 25.20 | 8 |
| 9 | Crosley ..... 4, CD, VC | 4 2 1/16x2 1/2 | Own | Ala | An, C | 6.50 | 1.906 | .0185 | .0030 | .152 | .131 | 2 | .1548 | .011 | .117 | 2 | .0622 | .012 | .120 | N | 2.280 | .6251 | F | .00035 | 4 1/16 | 3140 | 9.62 | 9 |
| 10 | De Soto ..... 6, S-15 | 6-3 1/16x4 1/2 | Own | Ala | Us, C, Tp | 18.50 | 3.875 | .0305 | .0007 | .178 | .176 | 2 | .1562 | .011 | .150 | 2 | .0938 | .011 | .169 | N | 2.875 | .8594 | F | .00025 | 7 1/16 | MFS | 32.40 | 10 |
| 11 | Dodge ..... 6, D-41, D-42 | 6-3 1/16x4 1/8 | Own | Ala | Us, C, Tp | 16.00 | 3.688 | .0305 | .0007 | .172 | .169 | 2 | .1562 | .011 | .150 | 2 | .0938 | .011 | .162 | Oi | 2.750 | .8594 | F | .00025 | 7 1/16 | MFS | 27.90 | 11 |
| 12 | Ford ..... 6, 1HA | 6-3.3x4.4 | ..... | Ala | St, O, Tp, Au | 16.10 | 3.750 | .0235 | .0009 | .192 | .187 | 2 | .1860 | .015 | .150 | 2 | .0932 | .014 | (s) | N | 2.905 | .8502 | F | .00020 | 8 1/4 | MFS | ..... | 12 |
| 13 | ..... V8, 1BA | 8-3 1/8x3 3/8 | ..... | Ala | St, O, Au, Tp, Sh | ..... | 2.980 | .0235 | .0008 | (q) | .181 | 2 | .1862 | .012 | .147 | 2 | .0932 | .012 | (r) | N | 2.835 | .7502 | F | .00015 | 7 | MFS | ..... | 13 |
| 14 | Frazer ..... 6, 515, 516 | 6-3 1/8x4 5/8 | TP | Ala | ..... | 15.31 | 3.531 | .0265 | .0010 | .182 | .174 | 2 | .1547 | .012 | .149 | 2 | .0930 | .012 | .164 | N | 2.780 | .8592 | F | .00020 | 7 | C1035 | 29.60 | 14 |
| 15 | Henry J. ..... 4, 513 | 4-3 1/16x4 5/8 | AM | Ala | O, TBp | 12.70 | 3.750 | .0180 | .0030 | .170 | .160 | 1 | .1862 | .010 | .140 | 2 | .0930 | .010 | .135 | N | 2.781 | .8118 | R | ..... | 9 1/16 | 1141 | 40.00 | 15 |
| 16 | ..... 6, 514 | 6-3 1/16x3 1/2 | AL | Ala | O, TBp, Ts | 10.80 | 3.000 | .0200 | .0021 | .170 | .160 | 1 | .1862 | .010 | .140 | 2 | .0930 | .012 | .139 | ..... | 2.656 | .7496 | R | .00010 | 6 1/16 | 1035 | 22.50 | 15 |
| 17 | Hudson ..... 6, 4A | 6-3 1/8x3 1/8 | Own | Ala | C | 18.38 | 3.750 | .0265 | .00150 | .195 | .195 | 2 | (p) | .010 | .158 | 2 | .0780 | .010 | .178 | N | 2.938 | .9680 | F | .00015 | 8 1/16 | C1041 | 32.38 | 17 |
| 18 | ..... 6, 5A, 6A | 6-3 1/8x4 1/8 | Own | Ala | C | 18.00 | 3.750 | .0265 | .00150 | .195 | .195 | 2 | (p) | .010 | .158 | 2 | .0780 | .010 | .178 | N | 2.938 | .9680 | F | .00015 | 8 1/16 | C1041 | 32.38 | 18 |
| 19 | ..... 6, 7A | 6-3 1/16x4 1/2 | Own | Ala | C | 18.56 | 3.750 | .0285 | .00150 | .209 | .209 | 2 | (p) | .010 | .165 | 2 | .0780 | .010 | .191 | N | 2.938 | .9680 | F | .00015 | 8 1/16 | C1041 | 32.375 | 19 |
| 20 | ..... 8, 8A | 8-3x4 1/2 | Own | Ala | C | 10.75 | 3.188 | .0160 | .0008 | .148 | .148 | 2 | (p) | .006 | .135 | 2 | .0930 | .006 | .128 | N | 2.438 | .7500 | F | .00015 | 8 1/16 | C1041 | 31.36 | 20 |
| 21 | Kaiser ..... 6, 511, 512 | 6-3 1/8x4 5/8 | TP | Ala | ..... | 15.31 | 3.531 | .0265 | .0010 | .182 | .174 | 2 | .1547 | .012 | .149 | 2 | .0930 | .012 | .164 | N | 2.780 | .8592 | F | .00020 | 7 | 1035 | 29.60 | 21 |
| 22 | Lincoln ..... V8, 1EL, 1EH | 8-3 1/16x4 5/8 | Bohn | Ala | Au, St, Sp | 20.02 | 3.840 | .0230 | .0001 | (i) | .184 | 1 | .1862 | .014 | .142 | 2 | .0934 | .014 | .149 | Oi | 2.842 | .7502 | F | .00030 | 8 1/16 | MFS | 27.05 | 22 |
| 23 | Mercury ..... V8, 1CM | 8-3 1/16x4 | Bohn | Ala | Au, St, Sp, Tp | 11.90 | 2.880 | .0220 | .0003 | (i) | .184 | 2 | .1862 | .014 | .142 | 2 | .0934 | .012 | .154 | N | 2.842 | .7501 | F | .00020 | 7 | MFS | 18.70 | 23 |
| 24 | Nash ..... 6, 5100 | 6-3 1/16x3 5/8 | Own | Ala | St, C, Tp, So | 13.75 | 3.375 | .0185 | .0016 | .173 | .170 | 2 | .1548 | .015 | (j) | 2 | .0930 | .015 | .151 | N | 2.750 | .8594 | R | .00020 | 6 1/16 | 1145 | 22.25 | 24 |
| 25 | ..... 6, 5140 | 6-3 1/16x4 | Own | Ala | St, C, Tp, So | 13.50 | 3.375 | ..... | ..... | .173 | .169 | 2 | .1548 | .015 | .144 | 2 | .0930 | .015 | .151 | N | 2.750 | .8594 | R | .00030 | 6 1/16 | FS | 25.00 | 25 |
| 26 | ..... 6, 5160 | 6-3 1/16x4 5/8 | Own | Ala | St, C, Tp, Sp | 17.50 | 3.875 | .0217 | ..... | .177 | (k) | 2 | .1548 | .015 | .140 | 2 | .0930 | .015 | (l) | N | 2.624 | .8746 | F | ..... | 8 1/4 | FS | 26.25 | 26 |
| 27 | Oldsmobile ..... V8, 88, 98 | 8-3 1/16x3 1/2 | Own | Ala | Au, C, Tp, St | 19.88 | 4.000 | .0290 | .0007 | .193 | .200 | 1 | .1875 | .015 | .150 | 2 | .0781 | .015 | .187 | Y | 3.016 | .9805 | F | .00010 | 6 1/16 | X1336 | 29.54 | 27 |
| 28 | Packard ..... 8, 200 | 8-3 1/16x3 3/4 | ..... | Ala | Au | 19.50 | 3.875 | ..... | .0007 | ..... | ..... | 1 | .1862 | .011 | ..... | 2 | .0932 | .012 | ..... | ..... | 3.016 | .8750 | F | ..... | 7 1/16 | FS | 35.80 | 28 |
| 29 | ..... 8, 300, 400 | 8-3 1/16x4 1/4 | ..... | Ala | Au | 19.50 | 3.875 | ..... | .0007 | ..... | ..... | 1 | .1862 | .011 | ..... | 2 | .0932 | .012 | ..... | ..... | 3.016 | .8750 | F | ..... | 7 1/16 | FS | 35.40 | 29 |
| 30 | Plymouth ..... 6, P-22, P-23 | 6-3 1/16x4 5/8 | Own | Ala | Us, C, Tp | 16.00 | 3.688 | .0305 | .0007 | .172 | .169 | 2 | .1562 | .011 | .150 | 2 | .0938 | .011 | .162 | N | 2.750 | .8594 | F | .00025 | 7 1/16 | MFS | 31.06 | 30 |
| 31 | Pontiac ..... 6, 25 | 6-3 7/16x4 | Own | CNI | Tp | 27.00 | 3.577 | .0235 | ..... | .195 | .182 | 1 | .1863 | .010 | .158 | 2 | .0933 | .010 | .175 | N | 3.062 | .9370 | P | ..... | 7 7/16 | FS | 36.90 | 31 |
| 32 | ..... 8, 27 | 8-3 1/16x3 1/4 | Own | CNI | Tp | 26.69 | 3.598 | .0230 | ..... | .192 | .162 | 1 | .1863 | .012 | .153 | 2 | .0933 | .012 | .153 | N | 2.875 | .9370 | P | ..... | 7 1/16 | FS | 31.80 | 32 |
| 33 | Studebaker ..... 6, 10G | 6-3x4 | Alcoa | Ala | Ts | 9.14 | 2.906 | .0172 | ..... | .168 | (m) | 1 | .1562 | .012 | .139 | 2 | (n) | .012 | (o) | Oi | 2.625 | .7500 | R | .00020 | 6 1/16 | C1041 | 19.04 | 33 |
| 34 | ..... V8, H | 8-3 1/16x3 1/4 | Alcoa | Ala | Ts | 13.70 | 3.016 | .0192 | ..... | .191 | .184 | 1 | .1875 | .012 | .138 | 2 | .0781 | .012 | .164 | Oi | 2.875 | .8750 | R | .00020 | 6 1/16 | C1141 | 23.71 | 34 |
| 35 | Willys ..... 4, 473-SD | 4-3 1/16x4 5/8 | Var | Ala | O, Bp, Ts | 12.50 | 3.750 | .0180 | .0030 | .170 | .160 | 1 | .1862 | .010 | .140 | 2 | .0930 | .010 | .135 | N | 2.781 | .8118 | R | ..... | 9 1/16 | 1141 | 40.00 | 35 |
| 36 | ..... 6, 673-SW | 6-3 1/16x3 1/2 | AL | Ala | O, Bp, Ts | 10.80 | 3.000 | .0195 | .0021 | .170 | .160 | 1 | .1875 | .010 | .140 | 2 | .0938 | .012 | .139 | N | 2.656 | .7500 | ..... | ..... | 6 1/16 | 1035 | 22.50 | 36 |

**ABBREVIATIONS**

♦—Powerglide model available at extra cost

(a)—Upper .1875 in., lower .1865 in.
(b)—Upper .015 in., lower .0018 (segmented)
(e)—Upper .147 in., lower .155 in.
(f)—Upper .015 in., lower .0017 in.
(g)—Upper .150 in., lower .170 in.
(h)—Upper .170 in., lower .150 in.
(i)—Upper .174 in., lower .192 in.
(j)—Upper .144 in., lower .151 in.
(k)—Upper .180 in., lower .157 in.
(l)—Upper .164 in., lower .140 in.
(m)—Upper .163 in., lower .148 in.
(n)—Upper .0938 in., lower .1250 in.
(o)—Upper .150 in., lower .135 in.
(p)—Upper .1875 in., lower .1560 in.
(q)—Upper .1989 in., lower .1864 in.
(r)—Upper .159 in., lower .147 in.
(s)—Upper .165 in., lower .150 in.
(t)—Upper .178 in., lower .1568 in.
(u)—Upper .0932 in., lower .1238 in.
(v)—Upper .0312 in., lower .010 in.
(w)—Upper .178 in., lower .155 in.
**A-B**—Aluminum Co. of America or Bohn
**AL**—Aluminum Industries, Inc.
**Ala**—Aluminum alloy
**Alcoa**—Aluminum Co. of America
**AM**—Aluminum Industries, Inc. or Mequay Norris
**Ao**—Aluminum oxide finish
**Au**—Autothermic
**Bohn**—Bohn Aluminum & Brass Corp.
**Bp**—Brass plated
**C**—Cam ground
**CI**—Cast alloy iron
**CNI**—Chrome nickel iron
**F**—Floating
**Fh**—Flat head
**FS**—Forged steel
**MFS**—Manganese forging steel
**N**—No or none
**O**—Oval
**Oi**—Oil ring only
**P**—Locked in piston
**R**—Locked in rod
**Sf**—Stanate finish
**Sh**—Spherical head
**So**—Solid skirt
**Sp**—Split skirt
**Ss**—Slipper skirt
**St**—Steel strut
**TBp**—Tin or brass plated
**Tp**—Tin plated
**TP**—Thompson Products
**Trs**—Transverse slot
**Ts**—TT slot
**Tt**—Turbulator top
**Us**—U-slot
**Var**—Various
**Y**—Yes

***For Directory of the Manufacturers listed above, see page 190.***

1951 PASSENGER CARS

# CONNECTING RODS AND CRANKSHAFT BEARINGS

| Line Number | PASSENGER CAR MAKE AND MODEL | CONNECTING ROD BEARINGS | | | | | | | CRANKSHAFT BEARINGS | | | | | MAIN BEARINGS | | | | | | | | | | | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Crankpin Journal | Lower Bearing | | | | | | | | | | | | | | | | Journal Diameter and Length | | | | | | | |
| | | Diameter and Length (In.) | Material | Average Clearance (In.) | Average End Play (In.) | Type of Shim | Type of Bearing | Rods and Pins Removed from | Vibration Damper | Counterweights | End Thrust Taken by | Amount of End Play (In.) | Type | Removable from below | Material | Clearance (In.) | Type of Shim | No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | No. 6 | No. 7 | No. 8 | No. 9 | |
| 1 | Buick 8, 40 | 2.125x1.030 | Dur | .0011 | .007 | N | Sep | A | Y | 8 | C | .006 | Si | Y | Dsb | .0013 | N | 2.562x1.266 | 2.562x1.031 | 2.562x1.547 | 2.562x1.031 | 2.562x1.781 | | | | | 1 |
| 2 | 8, 50 | 2.125x1.030 | Dur | .0011 | .007 | N | Sep | A | Y | 8 | C | .006 | Si | Y | Dsb | .0013 | N | 2.562x1.266 | 2.562x1.031 | 2.562x1.547 | 2.562x1.031 | 2.562x1.781 | | | | | 2 |
| 3 | 8, 70 | 2.250x1.306 | Dur | .0011 | .007 | N | Sep | A | Y | 8 | C | .006 | Si | Y | Dsb | .0013 | N | 2.562x1.281 | 2.625x .969 | 2.688x1.469 | 2.750x .969 | 2.812x2.469 | | | | | 3 |
| 4 | Cadillac V8, 61, 62, 60, 75 | 2.250x2.000 | Dur | .0022 | .011‡ | N | Sep | A | Y | 6 | R | .003 | Si | Y | Dur | .0020 | N | 2.500x1.000 | 2.500x1.062 | 2.500x1.062 | 2.500x1.062 | 2.500x1.875 | | | | | 4 |
| 5 | Chevrolet 6, JJ, JK | 2.311x1.437 | Bab | .0008 | .008 | L | Spun | A | Y | 7 | 3 | .006 | Si | Y | Bsb | .0018 | So | 2.684x1.453 | 2.715x1.438 | 2.746x1.436 | 2.777x2.094 | | | | | | 5 |
| 6 | 6, 2100♣ | 2.311x1.437 | Bab | .0008 | .008 | L | Spun | A | Y | 7 | 3 | .006 | Si | Y | Bsb | .0018 | So | 2.684x1.453 | 2.715x1.438 | 2.746x1.436 | 2.777x2.094 | | | | | | 6 |
| 7 | Chrysler 6, C-45 | 2.125x1.219 | Bsb | .0010 | .008 | N | Sep | A | Y | 9 | R | .005 | Si | Y | Bsb | .0010 | N | 2.500x1.234 | 2.500x1.234 | 2.500x1.234 | 2.500x1.875 | | | | | | 7 |
| 8 | V8, C-52, C-53, C-54 | 2.250x2.000 | Bsb | .0010 | .010‡ | N | Sep | A | Y | 8 | C | .004 | Si | Y | Bsb | .0010 | N | 2.500x1.062 | 2.500x1.094 | 2.500x1.156 | 2.500x1.094 | 2.500x1.875 | | | | | 8 |
| 9 | Crosley 4, CD, VC | 1.375x .870 | Bsb | .0022 | .018 | N | Sep | B | N | 8 | R | .006 | Si | | Bsb | .0022 | N | 1.375x1.312 | 1.375x .870 | 1.375x .870 | 1.375x .870 | 1.500x1.499 | | | | | 9 |
| 10 | DeSoto 6, S-15 | 2.125x1.219 | Bsb | .0010 | .008 | N | Sep | A | Y | 9 | R | .005 | Si | Y | Bsb | .0010 | N | 2.500x1.234 | 2.500x1.234 | 2.500x1.234 | 2.500x1.875 | | | | | | 10 |
| 11 | Dodge 6, D-41, D-42 | 2.062x1.250 | Bsb | .0010 | .008 | N | Sep | A | (a) | 7 | R | .005 | Si | Y | Bsb | .0010 | N | 2.500x1.438 | 2.500x1.250 | 2.500x1.250 | 2.500x1.875 | | | | | | 11 |
| 12 | Ford 6, 1HA | 2.298x1.400 | Sab | .0016 | .005 | N | Sep | A | Y | 7 | R | .006 | Si | Y | Spec | .0012 | N | 2.873x1.312 | 2.873x1.360 | 2.873x1.360 | 2.873x1.590 | | | | | | 12 |
| 13 | 8, 1BA | 2.138x1.756 | Sab | .0018 | .013‡ | N | Sep | A | N | 8 | R | .004 | Si | Y | Spec | .0018 | N | 2.498x1.681 | 2.498x1.682 | 2.498x2.255 | | | | | | | 13 |
| 14 | Frazer 6, 51S, 51G | 2.062x1.312 | Bab | .0012 | .008 | N | Sep | A | Y | 6 | R | .004 | Si | Y | Bsb | .0014 | N | 2.375x1.281 | 2.375x1.530 | 2.375x1.530 | 2.375x1.635 | | | | | | 14 |
| 15 | Henry J. 4, 512 | 1.938x1.312 | Bsb | .0015 | .007 | N | Sep | A | N | 4 | F | .005 | Si | Y | Bsb | .0022 | N | 2.333x1.925 | 2.333x2.000 | 2.333x1.938 | | | | | | | 15 |
| 16 | 6, 514 | 1.875x1.125 | Bsb | .0015 | .005 | N | Sep | A | Y | 7 | F | .005 | Si | Y | Bsb | .0020 | N | 2.250x1.306 | 2.250x1.250 | 2.250x1.250 | 2.250x1.594 | | | | | | 16 |
| 17 | Hudson 6, 4A | 2.125x1.625 | Bab | .0010 | .010 | N | Sep | A | Y | 7 | 3 | .006 | Si | Y | Bsb | .0010 | N | 2.500x1.438 | 2.500x1.375 | 2.500x1.625 | 2.500x1.750 | | | | | | 17 |
| 18 | 6, 5A, 6A | 2.125x1.625 | Bab | .0010 | .010 | N | Sep | A | Y | 7 | 3 | .006 | Si | Y | Bsb | .0010 | N | 2.500x1.438 | 2.500x1.375 | 2.500x1.625 | 2.500x1.750 | | | | | | 18 |
| 19 | 6, 7A | 2.125x1.625 | Bab | .0010 | .010 | N | Sep | A | Y | 7 | 3 | .006 | Si | Y | Bsb | .0010 | N | 2.500x1.438 | 2.500x1.375 | 2.500x1.625 | 2.500x1.750 | | | | | | 19 |
| 20 | 8, 8A | 1.938x1.375 | (b) | .0005 | .010 | N | Spun | A | Y | 8 | 3 | .009 | Si | Y | Bbt | .0010 | N | 2.281x1.625 | 2.312x1.375 | 2.343x1.875 | 2.375x1.375 | 2.406x2.000 | | | | | 20 |
| 21 | Kaiser 6, 511, 512 | 2.062x1.312 | Bab | .0012 | .008 | N | Sep | A | Y | 6 | R | .004 | Si | Y | Bab | .0014 | N | 2.375x1.281 | 2.375x1.530 | 2.375x1.530 | 2.375x1.635 | | | | | | 21 |
| 22 | Lincoln V8, 1EL, 1EH | 2.400x2.250 | CL | .0011 | .010‡ | N | Sep | A | Y | 6 | R | .006 | Si | Y | CL | (c) | N | 2.873x2.874 | 2.873x2.874 | 2.873x2.874 | | | | | | | 22 |
| 23 | Mercury V8, 1CM | 2.138x1.755 | CL | .0018 | .013‡ | N | Sep | A | N | 6 | R | .004 | Si | Y | Bab | .0018 | N | 2.498x1.676 | 2.498x1.677 | 2.499x2.264 | | | | | | | 23 |
| 24 | Nash 6,5110 | 2.094x1.125 | Bsb | .0015 | .010 | N | Sep | A | Y | 7 | F | .006 | Si | Y | Bsb | .0014 | N | 2.484x1.312 | 2.484x1.375 | 2.484x1.375 | 2.484x1.688 | | | | | | 24 |
| 25 | 6,5140 | 2.094x1.125 | Bsb | .0015 | .010 | N | Sep | A | Y | 6 | F | .005 | Si | Y | Bsb | .0018 | N | 2.484x1.312 | 2.484x1.375 | 2.484x1.375 | 2.484x1.688 | | | | | | 25 |
| 26 | 6,5180 | 2.000x1.436 | Bsb | .0015 | .010 | N | Sep | A | Y | 7 | F | .006 | Si | Y | Bsb | .0014 | N | 2.484x1.500 | 2.484x1.125 | 2.484x1.125 | 2.484x1.875 | 2.484x1.125 | 2.484x1.125 | 2.484x1.875 | | | 26 |
| 27 | Oldsmobile V8, 88, 98 | 2.250x2.000 | Dur | .0019 | .008 | N | Sep | A | N | 6 | R | .005 | Si | Y | Dur | .0020 | N | 2.500x1.094 | 2.500x1.125 | 2.500x1.125 | 2.500x1.125 | 2.625x1.880 | | | | | 27 |
| 28 | Packard 8,200 | 2.250x1.312 | Spec | .0015 | .007 | | Sep | | Y | 8 | C | .007 | Si | Y | Spec | .0020 | | 2.746x1.219 | 2.746x1.062 | 2.746x1.594 | 2.746x1.062 | 2.746x2.062 | | | | | 28 |
| 29 | 8,300 | 2.250x1.312 | Spec | .0015 | .007 | | Sep | | Y | 8 | C | .007 | Si | Y | Spec | .0020 | | 2.746x1.219 | 2.746x1.062 | 2.746x1.594 | 2.746x1.062 | 2.746x2.062 | | | | | 29 |
| 30 | 8,400 | 2.250x1.312 | Spec | .0015 | .007 | | Sep | | Y | 8 | C | .007 | Si | Y | Spec | .0020 | | 2.746x1.219 | 2.746x1.062 | 2.746x1.062 | 2.746x1.062 | 2.746x1.594 | 2.746x1.062 | 2.746x1.062 | 2.746x1.062 | 2.746x2.062 | 30 |
| 31 | Plymouth 6, P-22, P-23 | 2.062x1.250 | Bab | .0010 | .008 | N | Sep | A | N | 7 | R | .005 | Si | Y | Bab | .0010 | N | 2.500x1.438 | 2.500x1.250 | 2.500x1.250 | 2.500x1.875 | | | | | | 31 |
| 32 | Pontiac 6, 1951-25 | 2.124x1.500 | Bab | .0011 | .010 | N | Sep | A | Y | 9 | RC | .006 | Si | Y | Bab | .0013 | N | 2.499x1.442 | 2.530x1.385 | 2.592x1.376 | 2.624x1.826 | | | | | | 32 |
| 33 | 8, 1951-27 | 1.999x1.250 | Bab | .0011 | .010 | N | Sep | A | Y | 8 | RC | .006 | Si | Y | Bab | .0013 | N | 2.374x1.443 | 2.405x1.385 | 2.436x1.635 | 2.467x1.376 | 2.624x1.918 | | | | | 33 |
| 34 | Studebaker 6, 10G | 1.812x1.125 | Bab | .0011 | .007 | N | Sep | A | Y | 4 | F | .004 | Si | Y | Bab | .0015 | N | 2.438x1.312 | 2.438x1.375 | 2.438x1.375 | 2.438x1.781 | | | | | | 34 |
| 35 | V8, H | 2.000x1.936 | Bab | .0011 | .010 | N | Sep | A | Y | 6 | F | .004 | Si | Y | Bab | .0016 | N | 2.500x1.312 | 2.500x1.125 | 2.500x1.125 | 2.500x1.125 | 2.500x1.781 | | | | | 35 |
| 36 | Willys 4, 473SD | 1.938x1.313 | Bab | .0014 | .007 | | | A | N | 4 | F | .005 | Si | Y | Bab | .0022 | N | 2.333x1.925 | 2.333x2.000 | 2.333x1.938 | | | | | | | 36 |
| 37 | 6, 673SW | 1.875x1.125 | Bab | .0013 | .006 | | Sep | A | Y | 4 | F | .004 | Si | Y | Bab | .0020 | | 2.250x1.304 | 2.250x1.260 | 2.250x1.260 | 2.250x1.604 | | | | | | 37 |

**ABBREVIATIONS**

♣—Powerglide chassis model available at extra cost
‡—Total of two rods

(a)—D-41 no, D-42 yes
(b)—SAE 13 or equivalent
(c)—Front and center .0012 in., rear .0016 in.
A—Above
B—Below
Bab—Babbitt
Bbt—Bronze—back lined with tin base
Bsb—Babbitt—steel backed
C—Center
CL—Copper lead—steel backed
Dsb—Durex—steel backed
Dur—Durex
F—Front
L—Laminated
N—No or none
R—Rear
RC—Rear center
Sep—Separate
Si—Slip-in
So—Solid
Spec—Special alloy
Sab—Special alloy—steel backed
Y—Yes

*For Directory of the Manufacturers listed above, see page 190.*

# VALVES, INTAKE AND EXHAUST

| Line Number | PASSENGER CAR MAKE AND MODEL | INTAKE VALVE: Make | Material | Overall Length (In.) | Head Diameter (In.) | Port Diameter (In.) Minimum | Seat: Angle (Deg.) | Seat: Inserts Used? | Stem Diameter (In.) | Lift (In.) | Springs: Pressure (Lb.) Valve Closed | Springs: Pressure (Lb.) Valve Open | Springs: Length (In.) Valve Closed | Springs: Length (In.) Valve Open | Springs: Length (In.) Out of Engine | EXHAUST VALVE: Make | Material | Overall Length (In.) | Head Diameter (In.) | Port Diameter (In.) Minimum | Seat: Angle (Deg.) | Seat: Inserts Used? | Stem Diameter (In.) | Lift (In.) | Springs: Pressure (Lb.) Valve Closed | Springs: Pressure (Lb.) Valve Open | Springs: Length (In.) Valve Closed | Springs: Length (In.) Valve Open | Springs: Length (In.) Out of Engine | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Buick 8, 40 | T-R-E | 3140 | 5.189 | 1.531 | 1.125 | 45 | No | .372 | .348 | 32† | 77† | 1.938† | 1.594† | 2.344† | T-R-E (a) | | 5.109 | 1.344 | 1.031 | 45 | No | .372 | .349 | 32† | 77† | 1.938† | 1.594† | 2.344† | 1 |
| 2 | 8, 50 | T-R-E | 3140 | 5.109 | 1.531 | 1.125 | 45 | No | .372 | .348 | 52• | 120• | 1.938• | 1.594• | 2.380• | T-R-E (a) | | 5.109 | 1.344 | 1.031 | 45 | No | .372 | .348 | 52• | 120• | 1.938• | 1.594• | 2.380• | 2 |
| 3 | 8, 70 | T-R-E | 3140 | 5.250 | 1.781 | 1.375 | 45 | No | .372 | .348 | 52• | 120• | 1.938• | 1.594• | 2.380• | T-R-E (a) | | 5.250 | 1.438 | 1.062 | 45 | No | .372 | .348 | 52• | 120• | 1.938• | 1.594• | 2.380• | 3 |
| 4 | Cadillac V8, 61, 62, 60, 75 | R | 3140 | 4.549 | 1.750 | 1.625 | 44 | No | .344 | .327 | 60 | 135 | 1.696 | 1.366 | 1.968 | R (b) | | 4.549 | 1.437 | 1.312 | 44 | No | .344 | .327 | 60 | 135 | 1.696 | 1.366 | 1.968 | 4 |
| 5 | Chevrolet 6, JJ, JK | Own | (c) | 6.275 | 1.641 | 1.250 | 30 | No | .341 | .294 | 58 | 132 | 1.821 | 1.505 | 2.125 | Own | Ss | 4.917 | 1.500 | 1.250 | 45 | No | .340 | .312 | 58 | 132 | 1.821 | 1.505 | 2.125 | 5 |
| 6 | 6, 2100A | Own | (c) | 6.379 | 1.938 | 1.438 | 30 | No | .341 | .328 | 65 | 160 | 1.821 | 1.505 | 2.156 | Own | Ss | 4.917 | 1.500 | 1.250 | 45 | No | .340 | .328 | 65 | 160 | 1.821 | 1.505 | 2.156 | 6 |
| 7 | Chrysler 6, C-51 | ..... | Ss | 4.781 | 1.718 | 1.391 | 45 | No | .341 | .375 | 42½ | 115 | 1.750 | 1.375 | 2.000 | ..... | Ss | 4.781 | 1.531 | 1.250 | 45 | Yes | .340 | .375 | 42½ | 115 | 1.750 | 1.375 | 2.000 | 7 |
| 8 | V8, C-52, C-53, C-54 | ..... | Ss | 5.000 | 1.812 | 1.270 | 45 | No | .372 | .378 | 51½‡ | 134‡ | 1.688‡ | 1.312‡ | 2.031‡ | ..... | Ss | 4.906 | 1.500 | 1.430 | 45 | Yes | .372 | .362 | 51½‡ | 134‡ | 1.688‡ | 1.312‡ | 2.031‡ | 8 |
| 9 | Crosley 4, CD, VC | Own | 3140 | 3.934 | 1.172 | 1.050 | 45 | No | .314 | .235 | 30 | 51 | 1.500 | 1.219 | 2.000 | Own | 2112 | 3.934 | 1.047 | .925 | 45 | No | .313 | .235 | 42 | 71 | 1.312 | 1.078 | ..... | 9 |
| 10 | De Soto 6, S-15 | ..... | Sa | 4.781 | 1.719 | 1.391 | 45 | No | .341 | .375 | 42½ | 115 | 1.750 | 1.375 | 2.000 | ..... | Ss | 4.781 | 1.531 | 1.250 | 45 | Yes | .340 | .375 | 42½ | 115 | 1.750 | 1.375 | 2.000 | 10 |
| 11 | Dodge 6, D-41, D-42 | ..... | Var | 4.781 | 1.531 | 1.188 | 45 | No | .341 | .359 | 42½ | 115 | 1.750 | 1.375 | 2.000 | ..... | Ss | 4.781 | 1.406 | 1.172 | 45 | Yes | .341 | .359 | 42½ | 115 | 1.750 | 1.375 | 2.000 | 11 |
| 12 | Ford 6, 1HA | Own | Ss | 5.360 | 1.647 | 1.511 | 45 | No | .341 | .336 | 50 | 100 | 2.110 | 1.750 | 2.560 | Own | Na | 5.360 | 1.510 | 1.340 | 45 | Yes | .341 | .332 | 50 | 100 | 2.110 | 1.750 | 2.560 | 12 |
| 13 | V8, 1BA | Own | Ss | 4.819 | 1.510 | 1.340 | 45 | No | .341 | .293 | 41½ | 82 | 1.890 | 1.600 | 2.200 | Own | Na | 4.816 | 1.510 | 1.340 | 45 | Yes | .341 | .289 | 41½ | 82 | 1.890 | 1.600 | 2.200 | 13 |
| 14 | Frazer 6, 515, 516 | E-R | 8640 | 5.190 | 1.520 | 1.370 | 30 | No | .341 | .352 | 51 | 113 | 1.672 | 1.312 | 1.969 | E-R | Ss | 5.200 | 1.298 | 1.182 | 45 | No | .339 | .332 | 51 | 113 | 1.672 | 1.312 | 1.969 | 14 |
| 15 | Henry J 4, 513 | A-E-T | 3140 | 5.891 | 1.531 | 1.343 | 45 | No | .373 | .351 | 53 | 120 | 2.109 | 1.750 | 2.500 | A-E-T | 3140 | 5.812 | 1.469 | 1.281 | 45 | No | .372 | .351 | 53 | 120 | 2.109 | 1.750 | 2.500 | 15 |
| 16 | 6, 514 | A-E-R | 3140 | 4.562 | 1.375 | ..... | 45 | No | .341 | .284 | 50 | 105 | 1.625 | 1.328 | 1.891 | A-E-R | 2112 | 4.562 | 1.281 | ..... | 45 | No | .340 | .300 | 50 | 105 | 1.625 | 1.328 | 1.891 | 16 |
| 17 | Hudson 6, 4A | E | 8645 | 5.730 | 1.831 | 1.687 | 45 | No | .342 | .346 | 77 | 159 | 2.188 | 1.842 | 2.500 | E | (d) | 5.730 | 1.556 | 1.375 | 45 | No | .341 | .346 | 77 | 159 | 2.188 | 1.842 | 2.500 | 17 |
| 18 | 6, 5A, 6A | E | 8645 | 5.730 | 1.831 | 1.687 | 45 | No | .342 | .346 | 77 | 159 | 2.188 | 1.842 | 2.500 | E | (d) | 5.730 | 1.556 | 1.375 | 45 | No | .341 | .346 | 77 | 159 | 2.188 | 1.842 | 2.500 | 18 |
| 19 | 6, 7A | E | 8645 | 5.730 | 1.831 | 1.687 | 45 | No | .342 | .346 | 77 | 159 | 2.188 | 1.842 | 2.500 | E | (d) | 5.730 | 1.556 | 1.375 | 45 | No | .341 | .346 | 77 | 159 | 2.188 | 1.842 | 2.500 | 19 |
| 20 | 8, 8A | E | 8645 | 5.094 | 1.500 | 1.380 | 45 | No | .341 | .343 | 40 | 80 | ..... | ..... | 2.343 | E | Ss | 5.094 | 1.375 | 1.223 | 45 | No | .339 | .343 | 40 | 80 | ..... | ..... | 2.343 | 20 |
| 21 | Kaiser 6, 511, 512 | T-R-E | 8640 | 5.190 | 1.520 | 1.370 | 30 | No | .341 | .352 | 51 | 113 | 1.672 | 1.312 | 1.969 | T-R-E | Ss | 5.200 | 1.298 | 1.182 | 45 | No | .339 | .332 | 51 | 113 | 1.672 | 1.312 | 1.969 | 21 |
| 22 | Lincoln V8, 1EL, 1EH | E-R | (e) | 5.715 | 1.800 | 1.570 | 45 | No | .341 | .350 | 65 | 146 | 1.680 | 1.320 | 2.080 | E-R | Na | 5.714 | 1.510 | 1.350 | 45 | Yes | .340 | .350 | 65 | 146 | 1.680 | 1.320 | 2.080 | 22 |
| 23 | Mercury V8, 1CM | O-E | Ss | 4.820 | 1.510 | 1.340 | 45 | No | .341 | .323 | 38½ | 82 | 2.130 | 1.810 | 2.410 | Own | Na | 4.815 | 1.510 | 1.340 | 45 | Yes | .341 | .323 | 38½ | 82 | 2.130 | 1.810 | 2.410 | 23 |
| 24 | Nash 6, 5110 | A-R | 3140 | 4.781 | 1.469 | 1.312 | 45 | No | .341 | .300 | 39 | 78½ | 1.750 | 1.438 | 2.094 | A-R | (f) | 4.781 | 1.281 | 1.125 | 45 | No | .341 | .300 | 39 | 78½ | 1.750 | 1.438 | 2.094 | 24 |
| 25 | 6, 5140 | A-R | ..... | 4.781 | 1.469 | 1.312 | 45 | No | .341 | .300 | 39 | 78½ | 1.750 | 1.438 | 2.094 | A-R | 2112 | 4.781 | 1.281 | 1.125 | 45 | No | .341 | .300 | 39 | 78½ | 1.750 | 1.438 | 2.094 | 25 |
| 26 | 6, 5160 | A-E | ..... | 5.484 | 1.781 | 1.593 | 30 | No | .373 | .365 | 55½ | 149 | 1.812 | 1.438 | 2.062 | A-E | 2112 | 5.484 | 1.469 | 1.312 | 45 | No | .373 | .364 | 55½ | 149 | 1.812 | 1.438 | 2.062 | 26 |
| 27 | Oldsmobile V8, 88, 98 | Var | (g) | 4.917 | 1.750 | 1.438 | 45 | No | .342 | .333 | 65 | 141 | 1.777 | 1.447 | 2.094 | Var | (b) | 4.941 | 1.438 | 1.188 | 45 | No | .393 | .333 | 65 | 141 | 1.777 | 1.447 | 2.094 | 27 |
| 28 | Packard 8, 200 | ..... | Cns | 5.875 | 1.672 | ..... | 30 | No | .342 | .342 | 63 | 140 | 1.750 | 1.406 | ..... | ..... | Au | 5.875 | 1.438 | ..... | 45 | ..... | .340 | .342 | 63 | 140 | 1.750 | 1.406 | ..... | 28 |
| 29 | 8, 300, 400 | ..... | Cns | 5.875 | 1.672 | ..... | 30 | No | .342 | .342 | 63 | 140 | 1.750 | 1.406 | ..... | ..... | Au | 5.875 | 1.438 | ..... | 45 | ..... | .340 | .342 | 63 | 140 | 1.750 | 1.406 | ..... | 29 |
| 30 | Plymouth 6, P-22, P-23 | ..... | ..... | 4.781 | 1.531 | 1.188 | 45 | No | .341 | .375 | 42½ | 115 | 1.750 | 1.375 | 2.000 | ..... | Ss | 4.781 | 1.406 | 1.172 | 45 | Yes | .341 | .375 | 42½ | 115 | 1.750 | 1.375 | 2.000 | 30 |
| 31 | Pontiac 6, 1951-25 | R-T | 3140 | 5.718 | 1.593 | 1.375 | 30 | No | .311 | .300 | 59½ | 101 | 1.906 | 1.594 | 2.344 | T | (i) | 5.721 | 1.469 | 1.312 | 45 | No | .311 | .300 | 59½ | 101 | 1.906 | 1.594 | 2.344 | 31 |
| 32 | 8, 1951-27 | R-T | 3140 | 5.531 | 1.468 | 1.250 | 30 | No | .311 | .300 | 62½ | 105 | 1.719 | 1.406 | 2.188 | T | (i) | 5.531 | 1.343 | 1.188 | 45 | No | .311 | .300 | 62½ | 105 | 1.719 | 1.406 | 2.188 | 32 |
| 33 | Studebaker 6, 10G | E-R | Cns | 4.344 | 1.344 | 1.188 | 45 | No | .312 | .344 | 51½ | 98 | 1.656 | 1.312 | 2.094 | E-R | 2112 | 4.344 | 1.281 | 1.125 | 45 | No | .312 | .344 | 51½ | 98 | 1.656 | 1.312 | 2.094 | 33 |
| 34 | V8, H | E-R | Cns | 5.172 | 1.406 | 1.250 | 45 | No | .344 | .359 | 62 | 130 | 2.094 | 1.750 | 2.500 | E-R | 2112 | 5.172 | 1.281 | 1.125 | 45 | No | .344 | .359 | 62 | 130 | 2.094 | 1.750 | 2.500 | 34 |
| 35 | Willys 4, 473-SD | T | 3140 | 4.781 | 2.000 | 1.840 | 45 | No | .373 | .260 | 73 | 160 | 1.656 | 1.375 | 1.969 | E | (d) | 5.710 | 1.469 | 1.276 | 45 | No | .372 | .351 | 53 | 120 | 2.109 | 1.750 | 2.500 | 35 |
| 36 | 6, 673-SW | E | 3140 | 4.562 | 1.375 | ..... | 45 | No | .341 | .284 | 50 | 105 | 1.625 | 1.328 | 1.891 | E | 2112 | 4.562 | 1.281 | ..... | 45 | No | .340 | .300 | 50 | 105 | 1.625 | 1.328 | 1.891 | 36 |

**ABBREVIATIONS**

†—Outer valve spring only; inner spring 20 lb, 1.656 in. with valve closed; 51 lb, 1.312 in. with valve open; 1.906 in. out of engine

‡—Outer valve spring only; inner spring 15 lb, 1.562 in. with valve closed; 39½ lb, 1.188 in. with valve open; 1.906 in. out of engine.

•—Outer valve spring only; inner spring 24 lb, 1.660 in. with valve closed; 52 lb, 1.320 in. with valve open; 2.100 in. out of engine

♦—Powerglide model available at extra cost

(a)—XCR or 2112N
(b)—Head N82120, stem 8729
(c)—Silichrome or nickel chrome steel
(d)—Head 2112, stem 8645
(e)—8654 or 3140
(f)—Head 2112, stem 3140
(g)—3140 and 8645.
(h)—Head XCR, stem 8645
(i)—GM-82172

**A-E**—Aluminum Ind. or Eaton
**A-E-R**—Aluminum Ind., Eaton, or Rich.
**A-E-T**—Aluminum Ind., Eaton, or Toledo
**A-R**—Aluminum Ind. or Rich.
**Au**—Austenitic steel
**Cns**—Chrome nickel steel
**E**—Eaton Mfg. Co.
**E-R**—Eaton or Rich.
**Na**—Nichrome alloy
**O-E**—Own or Eaton **R**—Rich Mfg. Co.
**R-T**—Rich or Thompson
**Ss**—Silichrome steel
**T**—Thompson Products, Inc
**T-R-E**—Thompson, Rich, or Eaton
**Var**—Various

**For Directory of the Manufacturers listed above, see page 190.**

1951 PASSENGER CARS

# TIMING GEARS, VALVE TIMING AND LUBRICATION

| Line Number | PASSENGER CAR MAKE AND MODEL | CRANKSHAFT GEAR OR SPROCKET: Make | CRANKSHAFT GEAR OR SPROCKET: Material | CAMSHAFT GEAR OR SPROCKET: Make | CAMSHAFT GEAR OR SPROCKET: Material | TIMING CHAIN: Make | TIMING CHAIN: Number of Links | TIMING CHAIN: Width (In.) | TIMING CHAIN: Pitch (In.) | VALVE TAPPET CLEARANCE (Inches): Intake: Operating | VALVE TAPPET CLEARANCE (Inches): Intake: Timing | VALVE TAPPET CLEARANCE (Inches): Exhaust: Operating | VALVE TAPPET CLEARANCE (Inches): Exhaust: Timing | Hydraulic Valve Lifters | VALVE TIMING (Degree): Intake: Opens BTC | VALVE TIMING (Degree): Intake: Closes ABC | VALVE TIMING (Degree): Exhaust: Opens BBC | VALVE TIMING (Degree): Exhaust: Closes ATC | LUBRICATION: Type | LUBRICATION: Oil Pressure: Main Bearings | LUBRICATION: Oil Pressure: Connecting Rods | LUBRICATION: Oil Pressure: Wristpins | LUBRICATION: Oil Pressure: Camshaft Bearings | LUBRICATION: Oil Pressure: Tappets | LUBRICATION: Oil Pressure: Timing Gear or Chain | LUBRICATION: Pump Type | LUBRICATION: Normal Oil Pressure Lbs. at M.P.H. | LUBRICATION: Lbs. Pressure which Opens Relief Valve | LUBRICATION: Crankcase Capacity Dry (Qts) Less Filter | LUBRICATION: Oil Pressure Gage Make | LUBRICATION: Floating Type Oil Intake | LUBRICATION: External Oil Filter Make | LUBRICATION: Oil Cooler Make | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Buick.....8, 40 | LB | 1140 | LB | CI | LB | 49 | | ½ | AA | AA | AA | AA | N | 13 | 69 | 55 | 22 | P | Y | Y | N | Y | N | Po | G | 35–35 | 35 | 6½ | AC | Yes | AC | No | 1 |
| 2 | .....8, 50 | LB | 1140 | LB | CI | LB | 49 | | ½ | AA | AA | AA | AA | Y | 13 | 69 | 55 | 22 | P | Y | Y | N | Y | N | Po | G | 35–35 | 35 | 6½ | AC | Yes | AC | No | 2 |
| 3 | .....8, 70 | LB | 1140 | LB | CI | LB | 50 | | ½ | AA | AA | AA | AA | Y | 14 | 71 | 56 | 25 | P | Y | Y | N | Y | N | Po | G | 35–35 | 35 | 8 | AC | Yes | AC | No | 3 |
| 4 | Cadillac....V8, 61, 62, 60, 75 | Own | 1115 | Own | 1115 | LB | 46 | 11/16 | ½ | AA | .001 | AA | .001 | Y | 24 | 98 | 63 | 49 | P | Y | Y | N | Y | Y | Sp | G | 28–30 | 26 | 5 | AC | Yes | No | No | 4 |
| 5 | Chevrolet.....6, JJ, JK | Own | Ste | Var | Co | TG | | | | .008H | | .013H | | N | 1 | 38 | 42 | 9 | PS | Y | Y | N | Y | N | Po | G | 14–39 | 60 | 5½ | AC | No | No | No | 5 |
| 6 | .....6, 21004 | Own | Ste | Var | Co | TG | | | | AA | AA | AA | AA | Y | 16 | 48 | 46½ | 17½ | PS | Y | Y | N | Y | N | Po | G | 14– † | 60 | 5½ | AC | No | No | No | 6 |
| 7 | Chrysler.....6, C-51 | ..... | Ma | ..... | CI | ..... | 48 | 1 | 1/2 | .008H | .014 | .010H | .014 | N | 12 | 44 | 50 | 6 | P | Y | Y | N | Y | N | Po | R | 45–20 | 45 | 5* | ..... | Yes | ..... | ..... | 7 |
| 8 | V8, C-52, C-53, C-54 | ..... | Ma | ..... | CI | ..... | 68 | 11/16 | 5/8 | AA | .000 | AA | .000 | Y | 15 | 57 | 49 | 15 | P | Y | Y | N | Y | Y | Po | R | 60–20 | 60 | 5* | ..... | Yes | ..... | ..... | 8 |
| 9 | Crosley.....4, CD, VC | Own | 1040 | Own | 1045 | TG | | | | .005C | | .008C | | N | 5 | 50 | 50 | 5 | P | Y | Y | N | Y | N | Po | G | 35–30 | 35 | 2¾ | SW | No | Fram | No | 9 |
| 10 | DeSoto.....6, S-15 | ..... | Ma | ..... | CI | ..... | 48 | 1 | ½ | .008H | .014 | .010H | .014 | N | 12 | 44 | 50 | 6 | P | Y | Y | N | Y | N | Po | R | 45–20 | 45 | 5* | ..... | Yes | Yes | ..... | 10 |
| 11 | Dodge.....6, D-41, D-42 | ..... | Ma | ..... | CI | ..... | 48 | 1 | ½ | .008H | .014 | .010H | .014 | N | 8 | 38 | 37 | 7 | P | Y | Y | N | Y | N | Po | R | 45–20 | 40 | 5* | ..... | Yes | (a) | ..... | 11 |
| 12 | Ford.....6, 1HA | Own | CI | ..... | Co | TG | | | | .014C | .014 | .018C | .018 | N | 11 | 41 | 48 | 10 | P | Y | Y | N | Y | N | Po | R | 45–35 | 60 | 5 | Var | No | Yes | No | 12 |
| 13 | .....V8, 1BA | Own | CI | Own | Co | TG | | | | .014C | .014 | .018C | .018 | N | 5 | 44 | 48 | 3 | P | Y | Y | N | Y | N | Po | G | 40–35 | 40 | 5 | Var | No | Yes | No | 13 |
| 14 | Frazer.....6, 51S, 51G | L-M | 1020 | L-M | CI | L-M | 46 | 1 | ½ | .014C | .014 | .014C | .014 | N | 10 | 60 | 55 | 10 | P | Y | Y | N | Y | Y | Po | G | 35–30 | 35 | 5½ | AL | Yes | F-P | ..... | 14 |
| 15 | Henry J.....4, 513 | ..... | CI | ..... | Co | TG | | | | .016 | .020 | .016 | N | N | 9 | 50 | –47 | 12 | P | Y | Y | N | Y | N | Po | G | 35–30 | 34 | 4 | KS | Yes | ..... | ..... | 15 |
| 16 | .....6, 514 | ..... | 111 | Wes | Co | TG | | | | .016 | .020 | .016 | ..... | N | 5 | 44 | 47 | 12 | P | Y | Y | N | Y | Y | Po | G | 35–30 | 40 | 6* | KS | Yes | ..... | ..... | 16 |
| 17 | Hudson.....6, 4A | Mor | Ste | Mor | CI | Mor | 60 | 11/16 | 5/8 | .008H | ..... | .010H | ..... | N | 7° 18′ | 53° 42′ | 53° 18′ | 7° 42′ | P | Y | Y | N | Y | Y | Gr | R | 40–30 | ..... | 7½ | ..... | Yes | Fram | No | 17 |
| 18 | .....6, 5A, 6A | Mor | Ste | Mor | CI | Mor | 60 | 11/16 | 5/8 | .008H | ..... | .010H | ..... | N | 7° 18′ | 53° 42′ | 53° 18′ | 7° 42′ | P | Y | Y | N | Y | Y | Gr | R | 40–30 | ..... | 7½ | ..... | Yes | Fram | No | 18 |
| 19 | .....6, 7A | Mor | Ste | Mor | CI | Mor | 60 | 11/16 | 5/8 | .008H | ..... | .010H | ..... | N | 7° 18′ | 53° 42′ | 53° 18′ | 7° 42′ | P | Y | Y | N | Y | Y | Gr | R | 40–30 | ..... | 7½ | ..... | Yes | Fram | No | 19 |
| 20 | .....8, 8A | Own | CI | Alc | Ala | TG | | | | .008H | | .010H | | N | 10° 40′ | 60 | 50 | 18° 44′ | (b) | N | N | N | N | N | Sp | G | 3– | 3 | 8 | ..... | Yes | Fram | No | 20 |
| 21 | Kaiser.....6, 811, 812 | L-M | 1020 | L-M | CI | L-M | 46 | 1 | ½ | .014C | .014 | .014C | .014 | N | 10 | 60 | 55 | 10 | P | Y | Y | N | Y | Y | Po | G | 35–30 | 35 | 5½ | AL | Yes | Pur | ..... | 21 |
| 22 | Lincoln.....V8, 1EL, 1EH | Own | CI | Own | CI | TG | | | | .000 | .006 | .000 | .006 | Y | 5 | 52 | 49 | 8 | P | Y | Y | N | Y | Y | Po | G | 50–40 | 50 | 6½ | Own | No | Fram | ..... | 22 |
| 23 | Mercury.....V8, 1CM | Own | CI | ..... | Co | TG | | | | .012C | .015 | ..... | .014 | N | 10 | 50 | 50 | 10 | P | Y | Y | N | Y | N | Po | G | 57–40 | 42 | 6 | Own | No | Fram | No | 23 |
| 24 | Nash.....6, 5110 | Own | 1117 | Own | 110 | Mor | 60 | 1 | 5/8 | .015H | .019 | .015H | .019 | N | 6 | 50 | 48 | 10 | P | Y | Y | N | Y | N | Po | G | 50–35 | ..... | 5 | KS | No | ..... | ..... | 24 |
| 25 | .....6, 5140 | Own | 1117 | Own | 110 | Mor | 60 | 1 | 5/8 | .015H | .019 | .015H | .019 | N | 6 | 50 | 46 | 10 | P | Y | Y | N | Y | N | Po | G | 50–35 | ..... | 5 | AL | No | ..... | No | 25 |
| 26 | .....6, 5160 | Own | 1117 | Own | 110 | Mor | 60 | 1 | 5/8 | .015H | .022 | .018H | .022 | N | 8° 30′ | 55° 30′ | 53° 30′ | 10° 30′ | P | Y | Y | Y | Y | N | Po | G | 50–30 | ..... | 6 | AL | No | ..... | No | 26 |
| 27 | Oldsmobile.....V8, 88, 98 | LB | 1140 | LB | CI | LB | 48 | 11/16 | ½ | AA | AA | AA | AA | Y | 13° 30′ | 50° 30′ | 49° 30′ | 14° 30′ | P | Y | Y | N | Y | Y | Po | G | 40–50 | 40 | 5 | AC | No | No | No | 27 |
| 28 | Packard.....8, 200 | ..... | Ste | ..... | CI | Mor | 58 | 1 | 5/8 | .007H | .012 | .010H | .015 | N | 15 | 45 | 50 | 9 | P | Y | Y | Y | Y | N | Po | G | 40– | ..... | 7 | ..... | Yes | ..... | ..... | 28 |
| 29 | .....8, 300, 400 | ..... | Ste | ..... | CI | Mor | 58 | 1 | 5/8 | AA | AA | AA | AA | Y | 18 | 43 | 53 | 4 | P | Y | Y | Y | Y | Y | Po | G | 40– | ..... | 7 | ..... | Yes | ..... | ..... | 29 |
| 30 | Plymouth.....6, P-22, P-23 | ..... | Ma | ..... | Ma | ..... | 48 | 1 | 1/2 | .008H | .014 | .010H | .014 | N | 12 | 44 | 50 | 6 | P | Y | Y | N | Y | N | Po | R | 45–20 | 50 | 5* | ..... | Yes | (c) | No | 30 |
| 31 | Pontiac.....6, 1951-25 | Own | Ste | Own | CI | Mor | 56 | 1 | 5/8 | .012H | .015 | .012H | .015 | N | 5 | 39 | 45 | 5 | P | Y | Y | Y | Y | N | Po | G | 37–40 | 35 | 6 | AC | No | No | No | 31 |
| 32 | .....8, 1951-27 | Own | Ste | Own | CI | Mor | 56 | 11/16 | 5/8 | .012H | .015 | .012H | .015 | N | 5 | 39 | 45 | 5 | P | Y | Y | Y | Y | N | Po | G | 37–40 | 35 | 6 | AC | No | No | No | 32 |
| 33 | Studebaker.....6, 10G | Own | CI | Con | Co | TG | | | | .016C | .020 | .016C | .020 | N | 18 | 49 | 54 | 10 | P | Y | Y | N | Y | Y | Po | G | 40–25 | 40 | 5 | SW | Yes | No | No | 33 |
| 34 | .....V8, H | Own | CI | Con | Co | TG | | | | .015 | .020 | .015 | .020 | N | 11 | 53 | 50 | 14 | P | Y | Y | N | Y | Y | Po | G | 40–25 | 40 | 8 | SW | Yes | Fram | No | 34 |
| 35 | Willys.....4, 473-SD | Own | CI | Con | Co | TG | | | | .018C | .026 | .012C | N | N | 9 | 50 | 47 | 12 | P | Y | Y | N | Y | N | Po | G | 35–30 | 34 | 4 | KS | Yes | No | ..... | 35 |
| 36 | .....6, 673-SW | Own | 111 | Con | Co | TG | | | | .016 | .020 | .016 | N | N | 5 | 44 | 47 | 12 | P | Y | Y | N | Y | Y | Po | G | 35–30 | 40 | 5 | KS | Yes | No | ..... | 36 |

**ABBREVIATIONS**

†—2000 rpm
•—Refill
♣—Powerglide model available at extra cost
(a)—D-41 none, D-42 yes
(b)—Duoflo splash system
(c)—P-22 none, P-23 yes

**AA**—Automatic Adjustment
**ABC**—After bottom center
**AC**—AC Spark Plug Div.
**AL**—The Electric Auto-Lite Co.
**Ala**—Aluminum alloy
**Alr**—Aluminum Co. of America
**ATC**—After top center
**BBC**—Before bottom center
**BTC**—Before top center
**C**—Cold **CI**—Cast iron
**Co**—Composition
**Con**—Continental Diamond Fibre Co.
**F-P**—Fram or Purolator
**Fram**—Fram Corp.
**G**—Gear **Gr**—Gravity
**H**—Hot
**KS**—King-Seeley Corp.
**LB**—Link Belt Co.
**L-M**—Link Belt or Morse
**Mor**—Morse Chain Co.
**Ms**—Manganese steel
**N**—No or none
**O**—Oscillating plunger
**P**—Pressure
**Po**—Positive
**PS**—Pressure and splash
**Pur**—Purolator Products, Inc.
**R**—Rotor
**Sp**—Splash
**Ste**—Steel
**SW**—Stewart Warner Corp.
**TG**—Timing gear
**Var**—Various
**Wes**—Westinghouse Electric Corp.
**Y**—Yes

*For Directory of the Manufacturers listed above, see page 190.*

1951 PASSENGER CARS

# FUEL AND COOLING SYSTEMS

| Line Number | PASSENGER CAR MAKE AND MODEL | FUEL SYSTEM: Tank Capacity (Gal.) | Feed: Type | Feed: Make | Carburetor: Make | Carburetor: Model No. | Carburetor: Size (In.) | Carburetor: Type | Manifold Heat Control | Automatic Choke—Make | Air Cleaner—Make | Muffler—Make | COOLING SYSTEM: Water Pump: Type | Water Pump: Drive | Water Pump: Packing Nut | Thermostat—Make | Pressure Relief Valve | By-pass for Recirculation | Radiator Core: Type | Radiator Core: Make | Capacity of System (Qts.) | Full Length Water Jackets | Water All Around Cylinder | Lower Hose: Inside Diameter (In.) | Lower Hose: Length (In.) | Upper Hose: Inside Diameter (In.) | Upper Hose: Length (In.) | FAN BELT: Make | FAN BELT: Angle of Vee (Deg.) | FAN BELT: Length Outside (In.) | FAN BELT: Width Max. (In.) | FAN BELT: Fan Make | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Buick 8, 40 | 19 | CP | AC | (a) | (a) | 1 1/8 | DD | A | S-C | AC | W-H | Ce | VB | N | Har | Y | Y | VC | Har | 12 | N | Y | 1 1/8 | ET | 1 1/8 | ET | Var | | | .750 | H | 1 |
| 2 | 8, 50 | 19 | CP | AC | (a) | (a) | 1 1/8 | DD | A | S-C | AC | W-H | Ce | VB | N | Har | Y | Y | VC | Har | 12 | N | Y | 1 1/8 | ET | 1 1/8 | ET | Var | | | .750 | H | 2 |
| 3 | 8, 70 | 19 | CP | AC | (b) | (b) | 1 1/4 | DD | A | S-C | AC | W-H | Ce | VB | N | Har | Y | Y | VC | Har | 18 | N | Y | 1 1/8 | ET | 1 1/8 | ET | Var | | | 1.030 | H | 3 |
| 4 | Cadillac V8, 61, 62, 60, 75 | 20 | CP | | Car | WCD-845-S | 1 1/4 | DD | A | Car | AC | W | Ce | VB | N | Do | Y | Y | TF | Har | 18 | Y | Y | 1 3/4 | 8 1/8 | 1 3/4 | 8 1/8 | G-G | 40 | 57 | .380 | H | 4 |
| 5 | Chevrolet 6, JJ, JK | 16 | CP | AC | Roc | 7003152 | 1 1/16 | SD | A | N | AC | Var | Ce | VB | N | Har | N | N | RC | Har | 15 | Y | Y | 1 1/2 | 16 1/2 | 1 1/4 | 6 3/4 | Var | 32 | 42 7/8 | .688 | Own | 5 |
| 6 | 6, 2100A | 16 | CP | AC | Roc | 7003160 | 1 1/16 | SD | A | N | AC | Var | Ce | VB | N | Har | Y | N | RC | Har | 15 | Y | Y | 1 1/2 | 2 5/8 | 1 1/4 | 6 3/4 | Var | 32 | 42 7/8 | .688 | Own | 6 |
| 7 | Chrysler 6, C-51 | 17 | OF | | Car | | 1 | SD | A | Sis | | | Ce | VB | N | | Y | Y | C | | 15 | Y | N | 1 1/2 | ET | 1 3/4 | ET | | | 36 | 49 | .375 | | 7 |
| 8 | V8, C-52, C-53, C-54 | 20 | CP | | Car | WCD-8305 | 2 1/4 | DD | A | Car | | | Ce | VB | N | | Y | Y | TF | | 25 | Y | Y | 1 3/4 | ET | 1 3/4 | ET | | | 36 | 38 | .375 | | 8 |
| 9 | Crosley 4, CD, VC | 6 1/2 | CP | AC | Til | DY-9C | 1 | SD | N | N | US | Own | | FC | Y | Fu | N | N | T | Yng | 4 | N | | 1 1/4 | 17 | 1 1/4 | 12 3/4 | Ga | 34 | 34 | .719 | Own | 9 |
| 10 | DeSoto 6, S-15 | 17 | CP | | Car | | 1 1/2 | SD | A | Sis | | | Ce | VB | N | | Y | Y | C | | 15 | Y | N | 1 1/2 | ET | 1 3/4 | ET | | 36 | 49 | .375 | | 10 |
| 11 | Dodge 6, D-41, D-42 | 17 | CP | | Str | BXVD-3-93 | 1 1/2 | SD | A | Sis | | | Ce | VB | N | | Y | Y | C | | 14 | Y | N | 1 1/2 | ET | 1 3/4 | ET | | 36 | 49 | .375 | | 11 |
| 12 | Ford 6, 1HA | 16 | CP | | Hol | 847-FS | 1 1/8 | SD | A | N | | Var | Ce | VB | N | Var | Y | Y | TF | Own | 17 1/2 | Y | Y | 1 1/2 | 15 | 1 1/2 | 9 1/2 | | 40 | 41 1/2 | .380 | | 12 |
| 13 | V8, 1BA | 16 | CP | | Own | 8BA | 1 | DD | A | N | | Var | Ce | VB | N | Var | Y | Y | TF | Own | 22 | Y | Y | 1 3/4 | 6 | 1 3/4 | 14 1/2 | | 38 | 41 3/4 | .380 | | 13 |
| 14 | Frazer 6, 515, 516 | 21 | CP | AC | Car | WGD | 1 1/4 | DD | A | Car | AC | H | Ce | VB | N | Har | Y | N | C | F-H | 13 | Y | Y | 1 1/2 | 6 | 1 1/2 | 7 1/2 | G-D | 45 | 43 1/4 | .375 | H | 14 |
| 15 | Henry J 4, 513 | 13 | CP | Car | Car | YF | 1 1/4 | SD | A | N | A-U | Mar | Ce | VB | N | Har | N | N | TF | Yng | 10 1/2 | Y | N | 1 1/2 | ET | 1 1/2 | ET | Th | 40 1/2 | 37 1/2 | .688 | H | 15 |
| 16 | 6, 514 | 13 | CP | Car | Car | YF | 1 1/4 | SD | A | N | A-U | Mar | Ce | VB | N | Har | N | N | TF | Yng | 9 | Y | N | 1 1/2 | ET | 1 1/2 | ET | Th | 40 1/2 | 37 1/2 | .688 | H | 16 |
| 17 | Hudson 6, 4A | 20 | CP | Car | Car | WA1-749S | 1 1/8 | SD | A | Car | AC | Old | Ce | VB | N | Fu | N | Y | TF | Mc | 18 1/2 | Y | Y | 1 3/8 | 4 | 1 1/2 | 12 1/2 | Var | 48 | 41 3/8 | .790 | H | 17 |
| 18 | 6, 5A, 6A | 20 | CP | Car | Car | WGD-776S | 1 1/4 | DD | A | Car | AC | Old | Ce | VB | N | Fu | Y | Y | TF | Mc | 18 1/2 | Y | Y | 1 3/8 | 4 | 1 1/2 | 12 1/2 | Var | 48 | 41 3/8 | .790 | H | 18 |
| 19 | 6, 7A | 20 | CP | Car | Car | WGD-776S | 1 1/4 | DD | A | Car | AC | Old | Ce | VB | N | Fu | Y | Y | TF | Mc | 18 1/2 | Y | Y | 1 3/8 | 4 | 1 1/2 | 12 1/2 | Var | 48 | 41 3/8 | .790 | H | 19 |
| 20 | 8, 8A | 20 | CP | Car | Car | WDO-648S | 1 1/4 | DD | A | Car | AC | Old | Ce | VB | N | Fu | Y | Y | TF | Mc | 18 1/2 | N | N | 1 3/8 | 4 | 1 1/2 | 12 1/2 | Var | 46 | 40 1/8 | .790 | H | 20 |
| 21 | Kaiser 6, 511, 512 | 17 | CP | Car | Car | WGD | 1 1/4 | DD | A | Car | AC | Mac | Ce | VB | N | Har | Y | N | C | Har | 13 1/2 | Y | Y | 1 1/2 | ET | 1 1/2 | ET | Gy | 36 | 41 | .375 | H | 21 |
| 22 | Lincoln V8, 1EL | 19 1/2 | CP | | Hol | 885-FFC | 1 3/8 | DD | A | Hol | | Var | Ce | VB | N | | Y | Y | CT | | 34 1/2 | Y | Y | 1 3/4 | (c) | 1 1/2 | (c) | | 38 | 42 1/2 | .370 | H | 22 |
| 23 | V8, 1EH | 21 1/2 | CP | | Hol | 885-FFC | 1 3/8 | DD | A | Hol | Var | Var | Ce | VB | N | | Y | Y | CT | | 34 1/2 | Y | Y | 1 3/4 | 5 1/2 | 1 1/2 | (c) | | 38 | 42 1/2 | .370 | H | 23 |
| 24 | Mercury V8, 1CM | 19 1/2 | CP | | Hol | 885-FFC | 1 3/8 | DD | A | Hol | | Var | Ce | VB | N | Var | Y | Y | TF | | 22 1/4 | Y | Y | 1 3/4 | 5 1/2 | 1 1/4 | 15 1/2 | | 38 | 41 1/2 | .375 | H | 24 |
| 25 | Nash 6, 5110 | 20 | CP | Car | Car | YF-757S | 1 1/4 | SD | A | Car | AC | W | Ce | VB | N | D-H | Y | N | TF | Mo | 11 | Y | N | 1 1/2 | 2 1/2 | 1 1/2 | ET | Gy | 40 | 40 1/4 | .406 | Own | 25 |
| 26 | 6, 5140 | 20 | CP | AC | Car | YF-824S | 1 1/4 | SD | A | Car | A-U | O-W | Ce | VB | N | Do | Y | N | CT | Mc | 15 | Y | N | 1 1/2 | 3 1/4 | 1 1/2 | 7 3/4 | G-G | 40 | 41 3/4 | .406 | Own | 26 |
| 27 | 6, 5160 | 20 | CP | AC | Car | WA-1-746S | 1 1/4 | SD | A | Car | AC | W | Ce | VB | N | Do | Y | N | CT | Mc | 18 | Y | Y | 1 1/2 | 3 1/4 | 1 3/8 | ET | G-G | 40 | 41 3/4 | .406 | Own | 27 |
| 28 | Oldsmobile V8, 88 | 18 | CP | AC | (d) | (d) | 1 1/8 | DD | A | C-R | AC | W-H | Ce | VB | N | Har | Y | Y | VC | Har | 21 1/2 | Y | Y | 1 3/4 | 14 1/8 | 1 1/2 | 8 1/4 | Var | 36 | 39 | .375 | H | 28 |
| 29 | V8, 98 | 18 | CP | AC | (d) | (d) | 1 1/8 | DD | A | C-R | AC | W-H | Ce | VB | N | Har | Y | Y | VC | Har | 21 1/2 | Y | Y | 1 3/4 | 13 1/4 | 1 1/2 | 9 | Var | 36 | 39 | .375 | H | 29 |
| 30 | Packard 8, 200 | 20 | CP | | Car | WGD-784S | 1 1/4 | DD | A | Car | | | Ce | VB | N | | Y | | | | 20 | | | | | | | | | | 41 3/8 | .375 | | 30 |
| 31 | 8, 300, 400 | 20 | CP | | Car | WGD-767S | 1 1/4 | DD | A | Car | | | Ce | VB | N | | Y | | | | 20 | | | | | | | | | | 41 3/8 | .375 | | 31 |
| 32 | Plymouth 6, P-22, P-23 | 17 | CP | | Car | D-8H2 | 1 1/2 | SD | A | Sis | | | Ce | VB | N | | N | Y | C | .. | 13 | Y | N | 1 1/2 | ET | 1 3/4 | ET | | 36 | 49 | .375 | | 32 |
| 33 | Pontiac 6, 1951-25 | 17 1/2 | CP | AC | Roc | 7002870 | 1 1/8 | SD | A | Roc | AC | Var | Ce | VB | N | Har | Y | Y | C | Har | 18 3/8 | Y | N | 1 3/4 | 17 3/4 | 1 3/4 | 13 3/8 | Var | 34 | 41 1/2 | .781 | Own | 33 |
| 34 | 8, 1951-27 | 17 1/2 | CP | AC | Car | WCD | 1 1/8 | DD | A | Car | AC | Var | Ce | VB | N | Har | Y | Y | C | Har | 19 3/8 | Y | N | 1 3/4 | 15 1/4 | 1 3/4 | 8 1/2 | Var | 34 | 41 1/2 | .781 | Own | 34 |
| 35 | Studebaker 6, 10G | 18 | CP | AC | Car | WE-715S | 1 1/4 | SD | A | Car | AC | W | Ce | VB | N | Var | N | N | C | Mc | 10 | Y | N | 1 1/4 | ET | 1 1/4 | ET | Var | 45 | 39 1/8 | .688 | H | 35 |
| 36 | V8, H | 18 | CP | AC | Str | AAUVB-26 | 1 1/8 | DD | A | Str | AC | W | Ce | VB | N | Var | N | Y | C | Mc | 17 1/4 | Y | Y | 1 1/4 | ET | 1 1/4 | ET | Ga | 38 | 55 1/4 | .380 | H | 36 |
| 37 | Willys 4, 473-SD | 15 | CP | AC | Car | YF-768S | 1 1/4 | SD | N | N | | M-W | Ce | VB | N | Har | Y | Y | C | Har | 11 | Y | Y | 1 1/2 | ET | 1 1/2 | ET | Var | 40 1/2 | 44 | .719 | H | 37 |
| 38 | 6, 673-SW | 15 | CP | AC | Zen | 39 | 1 1/4 | SD | A | N | AC | M-M | Ce | VB | N | Har | N | N | C | Har | 9 | Y | Y | 1 1/2 | ET | 1 1/2 | ET | Var | 42 | 37 1/4 | .688 | H | 38 |

**ABBREVIATIONS**

(a)—Stromberg AAUVB-267 or Carter WCD-7258A
(b)—Stromberg AAVB-267 or Carter WCD-7268A
(c)—Left hand 7 in., right hand 8.1 in.
(d)—Rochester BB or Carter WGD
**A**—Automatic
**AC**—A.C. Spark Plug Div.
**A-U**—A. C. or United Specialties
**C**—Cellular
**Car**—Carter Carburetor Co.
**Ce**—Centrifugal
**CP**—Camshaft pump
**C-R**—Carter or Rochester
**CT**—Cellular tubular
**DD**—Dual downdraft
**D-H**—Dole or Harrison
**Do**—Dole Valve Co.
**ET**—Elbow type
**FC**—Flexible coupling
**F-H**—Fedders or Harrison
**Fu**—Fulton Sylphon Div.
**Ga**—Gates Rubber Co.
**G-D**—Goodyear or Dayton
**GG**—Gates and Goodyear
**Gy**—Goodyear Rubber Co.
**H**—Hayes Industries
**Har**—Harrison Radiator Div.
**Hol**—Holley Carburetor Co.
**Mac**—MacKenzie Muffler Co.
**Mar**—Maremont Automotive Products, Inc.
**Mc**—McCord Radiator Co.
**M-M**—Maremont or MacKenzie
**Mo**—Modine Mfg. Co.
**M-W**—Maremont or Walker
**N**—No or none
**Old**—Oldberg Mfg. Co.
**O-W**—Oldberg or Walker
**RC**—Ribbed cellular
**Roc**—Rochester Products
**S-C**—Stromberg or Carter
**SD**—Single downdraft
**Sis**—Sisson (Pierce Governor Co.)
**Str**—Stromberg Carburetor Co.
**T**—Tubular
**TF**—Tube and fin
**Th**—Thermoid Co.
**Til**—Tillotson Mfg. Co.
**US**—United Specialties
**Var**—Various **VB**—Vee belt
**VC**—Vee cellular
**W**—Walker Mfg. Co.
**W-H**—Walker or Hayes
**Y**—Yes
**Yng**—Young Radiator Co.
**Zen**—Zenith Carburetor Div.
♦—Powerglide model available at extra cost

***For Directory of the Manufacturers listed above, see page 190.***

1951 PASSENGER CARS

# IGNITION SYSTEMS AND BATTERIES

| Line Number | PASSENGER CAR MAKE AND MODEL | IGNITION | | | | | | | | | | COIL | | SPARK PLUGS | | | | Ignition Cable Make | BATTERY | | | | | | | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Make | Model | Max. Automatic Advance (Deg.) at What Engine R.P.M. | Inches Mercury Required for Vacuum Advance (±1 in.) | Max. Vacuum Advance—Crankshaft (Deg.) | Breaker Point: Gap (In.) | Breaker Point: Arm Tension (Oz.) | Cam Angle (Deg.) | Timing: Spark Occurs (Deg.) | Timing: Marks On | Timing: Firing Order | Amperage Draw: Engine Stopped | Amperage Draw: Engine Idling | Make | Model | Thread Size | Gap (In.) | | Make | Capacity—Amp. Hrs. at 20 Hr. Rate | Plates per Cell | Bench Charging Rate: Start (Amp.) | Bench Charging Rate: Finish (Amp.) | Terminal Grounded | Location | |
| 1 | Buick 8, 40 | DR | 1110815 | 26.0–3000 | 6.0† | 10–12 | .015 | 19–23 | * | 4BT | Fly | 1,6,2,5,8,3,7,4 | 4.50 | 2.50 | AC | 46x | 14 | .025 | Pak | DR | 100 | 15 | ▲ | ▲ | Neg | UH | 1 |
| 2 | 8, 50 | DR | 1110815 | 26.0–3000 | 6.0† | 10–12 | .015 | 19–23 | * | 4BT | Fly | 1,6,2,5,8,3,7,4 | 4.50 | 2.50 | AC | 46x | 14 | .025 | Pak | DR | 100 | 15 | ▲ | ▲ | Neg | UH | 2 |
| 3 | 8, 60 | DR | 1110815 | 26.0–3000 | 6.0† | 10–12 | .015 | 19–23 | * | 6BT | Fly | 1,6,2,5,8,3,7,4 | 4.50 | 2.50 | AC | 46x | 14 | .025 | Pak | DR | 120 | 17 | ▲ | ▲ | Neg | UH | 3 |
| 4 | Cadillac V8, 61, 62, 60, 75 | DR | 1110920 | 32.0–3600 | 5.0‡ | 18–22 | .016 | 19–23 | 31 | 5BT | ..... | 1,8,4,3,6,5,7,2 | 5.00 | 2.80 | AC | 46–5 | 14 | .035 | Pak | DR | 115 | 17 | 10.0 | 8.0 | Neg | UH | 4 |
| 5 | Chevrolet 6, JJ, JK | DR | 1112362 | 39.5–3450 | 7.0 | 20 | .021 | 17–21 | 34 | 5BT | Fly | 1,5,3,6,2,4 | 4.90 | 2.50 | AC | 46–5 | 14 | .035 | Var | DR | 100 | 15 | ..... | 7.0 | Neg | UH | 5 |
| 6 | 6, 2100♣ | DR | 1112363 | 33.0–3700 | 7.0 | 20 | .021 | 17–21 | 34 | 5BT | Fly | 1,5,3,6,2,4 | 4.50 | 2.50 | AC | 46–5 | 14 | .035 | Var | DR | 100 | 15 | ..... | 7.0 | Neg | UH | 6 |
| 7 | Chrysler 6, C-51 | AL | IAT-4012 | 22.0–2850 | 5.5 | 20 | .020 | 17–20 | 36½ | 2BT | VD | 1,5,3,6,2,4 | 5.00 | 2.25 | AL | AR8 | 14 | .035 | | W-A | 120 | 17 | ..... | ..... | Pos | UH | 7 |
| 8 | V8, C-52, C-53, C-54 | AL | IAZ-4001 | 29.0–3400 | 5.5 | 21–25 | .016 | 17–20 | 35 | TDC | VD | 1,8,4,3,6,5,7,2 | 5.00 | 2.25 | AL | AAR8 | 14 | .035 | | W-A | 135 | 19 | ..... | ..... | Pos | UH | 8 |
| 9 | Crosley 4, CD, VC | AL | ICW-4181C | 34.0–3000 | None | ..... | .020 | 17–20 | 40 | 12BT | Fly | 1,3,4,2 | 5.00 | 2.00 | CH | J-8 | 14 | .025 | EX | ..... | 70 | 11 | 8.0 | 4.0 | Pos | UH | 9 |
| 10 | De Soto 6, S-15 | AL | IAT-4012 | 22.0–2850 | 5.5 | 20 | .020 | 17–20 | 36½ | 2BT | VD | 1,5,3,6,2,4 | 5.00 | 2.25 | AL | AR8 | 14 | .035 | ..... | W-A | 120 | 17 | ..... | ..... | Pos | UH | 10 |
| 11 | Dodge 6, D-41, D-42 | AL | IAT-4011 | 22.0–2850 | 5.5 | 18 | .020 | 17–20 | 36½ | 2BT | ‡‡ | 1,5,3,6,2,4 | 5.00 | 2.25 | AL | AR8 | 14 | .035 | ..... | W-A | 105 | 15 | ..... | ..... | Pos | UH | 11 |
| 12 | Ford 6, 1HA | Own | 7HA | None | .2□ | 26 | .025 | 17–20 | 36½ | TDC | ..... | 1,5,3,6,2,4 | 5.00 | 3.00 | CH | H-10 | 14 | .031 | ..... | Var | 100 | 17 | 9.0 | 4.0 | Pos | UH | 12 |
| 13 | V8, 1BA | Own | 1BA | ..... | .3■ | 27 | .015 | 17–20 | 27½ | 2BT | CP | 1,5,4,8,6,3,7,2 | 5.00 | 3.00 | CH | H-10 | 14 | .031 | ..... | Var | 90 | 15 | 9.0 | 4.0 | Pos | UH | 13 |
| 14 | Frazer 6, 515, 516 | AL | IGS-4214 | 18.0–3360 | 11.0 | 10 | .020 | 17–20 | 38 | 4BT | VD | 1,5,3,6,2,4 | 5.10 | ..... | AL | A-5G | 14 | .032 | Pak | AL | 100 | 15 | ..... | ..... | Pos | UH | 14 |
| 15 | Henry J 4, 513 | AL | IAT-4008A | 22.0–3000 | 3.5 | 22 | .020 | ..... | ..... | TDC | Fly | 1,3,4,2 — | ..... | ..... | AL | AN-7 | 14 | .030 | ..... | W-A | 100 | 15 | ..... | ..... | Pos | UH | 15 |
| 16 | 6, 514 | AL | IAT-4007 | 24.0–3000 | 3.5 | 14 | .020 | 17–21 | 38 | TDC | ..... | 1,5,3,6,2,4 | 5.00 | 2.50 | AL | AN-7 | 14 | .030 | AL | W-A | 100 | 15 | ..... | ..... | Pos | UH | 16 |
| 17 | Hudson 6, 4A | AL | IAT-4009 | 20.0–2400 | 12.0 | 10 | .020 | 17–20 | 39 | TDC | Fly | 1,5,3,6,2,4 | 4.50 | 2.50 | CH | H-8 | 14 | .032 | EX | Nat | 100 | 17 | ..... | ..... | Pos | UH | 17 |
| 18 | 6, 5A, 6A | AL | IAT-4009A | 18.0–4000 | 16.0 | 8 | .020 | 17–20 | 39 | TDC | Fly | 1,5,3,6,2,4 | 4.50 | 2.50 | CH | H-8 | 14 | .032 | EX | Nat | 100 | 17 | ..... | ..... | Pos | UH | 18 |
| 19 | 6, 7A | AL | IAT-4009A | 18.0–4000 | 16.0 | 8 | .020 | 17–20 | 39 | TDC | Fly | 1,5,3,6,2,4 | 4.50 | 2.50 | CH | H-8 | 14 | .032 | EX | Nat | 100 | 17 | ..... | ..... | Pos | UH | 19 |
| 20 | 8, 8A | AL | IGT-42048-1 | 38.0–3400 | 16.0 | 8 | .017 | 17–20 | 27 | TDC | Fly | 1,6,2,5,8,3,7,4 | 4.50 | 2.50 | CH | H-8 | 14 | .032 | EX | Nat | 100 | 17 | ..... | ..... | Pos | UH | 20 |
| 21 | Kaiser 6, 511, 512 | DR | 1110224 | 18.0–3450 | 10.0 | 12 | .020 | 17–20 | 34 | 4BT | VD | 1,5,3,6,2,4 | ..... | ..... | AL | A-5 | 14 | .032 | Pak | AL | 100 | 15 | ..... | ..... | Pos | UH | 21 |
| 22 | Lincoln V8, 1EL, 1EH | Own | OEL | None | .5□ | 24 | .015 | 17–20 | 27½ | 4BT | VD | 1,5,4,8,6,3,7,2 | 5.00 | 3.00 | CH | H-10 | 14 | .031 | EX | Var | 120 | 17 | 9.0 | 4.0 | Pos | UH | 22 |
| 23 | Mercury V8, 1CM | Own | 1CM | ..... | .2■ | 21 | .015 | 17–20 | 27½ | 2BT | CP | 1,5,4,8,6,3,7,2 | 5.00 | 3.00 | CH | H-10 | 14 | .031 | EX | Var | 100 | 17 | 9.0 | 4.0 | Pos | UH | 23 |
| 24 | Nash 6, 5110 | DR | 1112351 | 22.0–2800 | 15.0 | 15 | .021 | 17–21 | 35 | TDC | VD | 1,5,3,6,2,4 | 3.90 | 1.70 | AL | A-5 | 14 | .030 | ..... | AL | 90 | 13 | 9.0 | 6.0 | Pos | UH | 24 |
| 25 | 6, 5140 | DR | 1112351 | 22.0–2800 | 15.0 | 15 | .021 | 17–21 | 35 | TDC | VD | 1,5,3,6,2,4 | 3.90 | 1.70 | AL | A-5 | 14 | .030 | ..... | AL | 90 | 13 | 9.0 | 6.0 | Pos | UH | 25 |
| 26 | 6, 5160 | DR | 1110225 | 28.0–2700 | 15.0 | 12 | .021 | 17–21 | 35 | TDC | ..... | 1,5,3,6,2,4 | ..... | ..... | (a) | (a) | 14 | .030 | ..... | AL | 105 | 15 | 10.0 | 7.0 | Pos | UH | 26 |
| 27 | Oldsmobile V8, 88, 98 | DR | 1110824 | 30.0–3700 | 5.5 | 20 | .016 | 19–23 | 29½ | 2½BT | CP | 1,8,7,3,6,5,4,2 | 4.50 | 2.00 | AC | 46–5 | 14 | .030 | Pak | DR | 115 | 17 | 12.5 | 5.3 | Neg | UH | 27 |
| 28 | Packard 8, 200 | (c) | (c) | ..... | ..... | ..... | .015 | (b) | ..... | 6BT | ..... | 1,6,2,5,8,3,7,4 | ..... | 2.75 | (d) | (d) | 14 | .028 | ..... | W-A | 100 | 17 | ..... | ..... | Pos | UH | 28 |
| 29 | 8, 300 | (c) | (c) | ..... | ..... | ..... | .015 | (b) | ..... | 6BT | ..... | 1,6,2,5,8,3,7,4 | ..... | 2.75 | (d) | (d) | 14 | .028 | ..... | W-A | 100 | 17 | ..... | ..... | Pos | UH | 29 |
| 30 | 8, 400 | (c) | (c) | ..... | ..... | ..... | .015 | (b) | ..... | 6BT | ..... | 1,6,2,5,8,3,7,4 | ..... | 2.75 | (d) | (d) | 14 | .028 | ..... | W-A | 120 | 17 | ..... | ..... | Pos | UH | 30 |
| 31 | Plymouth 6, P-22, P-23 | AL | ..... | 22.0–2650 | 6.0 | 14–18 | .019 | 17–20 | 36½ | 2BT | CP | 1,5,3,6,2,4 | 5.00 | 2.25 | AL | AR8 | 14 | .035 | ..... | W-A | 100 | 15 | ..... | ..... | Pos | UH | 31 |
| 32 | Pontiac 6, 1951-25 | DR | 1110222 | 28.0–4100 | 8.0 | 17 | .022 | 17–21 | 34 | 6BT | VD | 1,5,3,6,2,4 | 4.20 | 2.40 | AC | 45 | 14 | .026 | Pak | DR | 100 | 15 | 7.0 | 7.0 | Neg | UH | 32 |
| 33 | 8, ,'51-27 | DR | 1110818 | 27.0–4200 | 8.0 | 22 | .016 | 19–23 | 25½ | 6BT | VD | 1,6,2,5,8,3,7,4 | 4.20 | 2.40 | AC | 45 | 14 | .026 | Pak | DR | 100 | 15 | 7.0 | 7.0 | Neg | UH | 33 |
| 34 | Studebaker 6, '3G | AL | IAT-4001 | 14.0–2800 | 4.0 | 18 | .020 | 17–20 | 39 | 2BT | VD | 1,5,3,6,2,4 | 4.50 | 1.00 | CH | J-7 | 14 | .025 | A-P | Wil | 100 | 15 | 5.8 | 5.8 | Pos | UH | 34 |
| 35 | V8, H | DR | 1110822 | 28.0–2600 | 5.0 | 18 | .016 | 17–21 | 25½ | 8BT | VD | 1,8,4,3,6,5,7,2 | 4.50 | 2.50 | CH | H-8 | 14 | .035 | A-P | Wil | 100 | 15 | 5.8 | 5.8 | Pos | UH | 35 |
| 36 | Willys 4, 473-SD | AL | IAT-4008 | 22.0–4000 | 4.8 | 10 | .020 | 17–20 | 51 | TDC | Fly | 1,3,4,2 | 5.00 | ..... | CH | J-7 | 14 | .030 | AL | AL | 100 | 15 | 7.0 | 7.0 | Neg | UH | 36 |
| 37 | 6, 673-SW | AL | ..... | 24.0–3000 | 3.0 | 12 | .020 | 17–20 | 39 | TDC | VD | 1,5,3,6,2,4 | 5.00 | ..... | CH | J-7 | 14 | .030 | AL | W-A | 100 | 15 | 7.0 | 7.0 | Neg | UH | 37 |

**ABBREVIATIONS**

†—12 for full advance
*—Do not recommend using a dwell meter for checking point opening
♣—1 amp per positive plate
‡—14 for full advance
♣—Powerglide model, available at extra cost
‡‡—D-41, crankshaft pulley; D-42, vibration damper
□—5.5 for full advance
■—5.0 for full advance
°—6.1 for full advance
(a)—Auto-Lite A-5 or AC 44
(b)—Auto-Lite 19-23 or Delco-Remy 17-21
(c)—Auto-Lite IGP-4502C or Delco-Remy 1110825
(d)—Auto-Lite A-5, AC 46-5, or Champion J-8
AC—A.C. Spark Plug Div.
AL—The Electric Auto-Lite Co.
A-P—Auto-Lite or Packard
BT—Before top center
CH—Champion Spark Plug Co.
CP—Crankshaft pulley
DR—Delco-Remy Div.
EX—Essex Wire Co.
Fly—Flywheel
Nat—National Battery Co.
Neg—Negative
Pak—Packard Electric Co.
Pos—Positive
TDC—Top deadcenter
UH—Under hood
Var—Various
VD—Vibration damper
W-A—Willard or Auto-Lite
Wil—Willard Storage Battery Co.

*For Directory of the Manufacturers listed above, see page 190.*

# STARTING MOTORS, LAMPS AND HORNS

| Line Number | PASSENGER CAR MAKE AND MODEL | STARTING MOTORS | | | | | | | | | | | | | | | | LAMPS | | | | | HORNS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Lock Test | | | No Load Test | | | | | | | Flywheel | | | | | | | | | | | | |
| | | Make | Model | Cranking Speed (R.P.M.) | Brush Spring Tension (Oz.) | Amperage Draw | Volts | Torque (Lb. Ft.) | Amperage Draw | Volts | R.P.M. | Type of Drive | Starting Device | Starting Operation | Pinion Meshes | No. of Teeth | Face Width of Teeth | Ratio to Starter Armature (to -1) | Make—Lighting Switch | Tail and Dash Lights in Series | Head Lamp—Make | Parking or Fender Light—Make | Tail and Stop Light—Make | Type | Number Used | Make | Amperage Draw of Each | Line Number |
| 1 | Buick 8, 40 | DR | 1107097 | 90 | 24-28 | 525 | 3.37 | 12.0 | 65.0 | 5.67 | 5000 | Sgo | Sol | Dap | F | 146 | .545 | 16.22 | DR | No | Gu | Gu | Gu | Vib | 2 | DR | 17-21 | 1 |
| 2 | 8, 50 | DR | 1107097 | 90 | 24-28 | 525 | 3.37 | 12.0 | 65.0 | 5.67 | 5000 | Sgo | Sol | Dap | F | 146 | .545 | 16.22 | DR | No | Gu | Gu | Gu | Vib | 2 | DR | 17-21 | 2 |
| 3 | 8, 70 | DR | 1107981 | 90 | 24-28 | 600 | 3.00 | 16.0 | 65.0 | 5.67 | 5500 | Sgo | Sol | Dap | F | 156 | .670 | 17.33 | DR | No | Gu | Gu | Gu | Vib | 2 | DR | 17-21 | 3 |
| 4 | Cadillac V8, 61, 62, 60, 75 | DR | 1107969 | ..... | 24-28 | 600 | 3.10 | 16.0 | 65.0 | 5.67 | 5500 | ..... | Sol | Pbd | F | 145 | .500 | 16.10 | DR | No | Gu | Gu | Gu | Vib | 2 | DR | 19-21 | 4 |
| 5 | Chevrolet 6, JJ, JK | DR | 1107075 | 125 | 24-28 | 525 | 3.40 | 12.0 | 65.0 | 5.00 | 5000 | Sgo | Sol | Pbd | F | 139 | .500 | 15.44 | DR | No | Gu | Gu | Gu | Vib | 2 | DR | 17-21 | 5 |
| 6 | 6, 2100♣ | DR | 1107075 | 125 | 24-28 | 525 | 3.40 | 12.0 | 65.0 | 5.00 | 5000 | Sgo | Sol | Pbd | F | 139 | .500 | 15.44 | DR | No | Gu | Gu | Gu | Vib | 2 | DR | 17-21 | 6 |
| 7 | Chrysler 6, C-51 | AL | MCL-6109 | ..... | 42-53 | 410 | 2.00 | 8.00 | 57.5 | 6.00 | 5300 | Sgo | Sol | Tik | F | 146 | .375 | 16.22 | ..... | No | ..... | ..... | ..... | Vib | 2 | ..... | 15 | 7 |
| 8 | V8, C-52, C-53, C-54 | AL | MCL-6109 | ..... | 42-53 | 410 | 2.00 | 8.00 | 57.5 | 6.00 | 5300 | Sgo | Sol | Tik | F | 146 | .375 | 16.22 | ..... | No | ..... | ..... | ..... | Vib | 2 | ..... | 15 | 8 |
| 9 | Crosley 4, CD, VC | AL | MZ-4147 | 250 | ..... | 280 | 2.00 | 4.4 | 70.0 | 5.50 | 4300 | Ben | Sol | Pbd | R | 88 | .375 | 8.80 | Dgs | No | AL | AL | AL | Vib | 1 | SW | 7 | 9 |
| 10 | De Soto 6, S-15 | AL | MCL-6108 | ..... | 42-53 | 410 | 2.00 | 8.00 | 57.5 | 6.00 | 5300 | Sgo | Sol | Tik | F | 146 | .375 | 16.22 | ..... | No | ..... | ..... | ..... | Vib | 2 | ..... | 15 | 10 |
| 11 | Dodge 6, D-41, D-42 | AL | MCH-6101 | ..... | 42-53 | 335 | 2.00 | 6.00 | 57.5 | 6.00 | 4900 | Ben | Sol | Tik | F | 146 | .375 | 16.22 | ..... | No | ..... | ..... | ..... | Vib | (e) | ..... | 15 | 11 |
| 12 | Ford 6, 1HA | Own | 1HA | 150 | 48-56 | 550 | 3.75 | 15.0 | 52.5 | 5.80 | 6000 | Ben | Sol | Tik | R | 114 | .375 | 12.70 | ..... | No | Own | Own | Own | AE | 2 | ..... | 11 | 12 |
| 13 | V8, 1BA | Own | 1BA | 130 | 48-56 | 550 | 3.75 | 15.0 | 52.5 | 5.80 | 6000 | Ben | Sol | Tik | R | 112 | .375 | 11.20 | ..... | No | Own | Own | Own | AE | 2 | ..... | 11 | 13 |
| 14 | Frazer 6, 515, 516 | AL | MAW-4054 | ..... | 42-53 | 505 | 3.00 | 11.5 | 65.0 | 5.50 | 4900 | Ben | Sol | Pbd | F | 130 | ..... | 15.56 | RBM | No | Hall | AL | AL | Vib | 2 | Opt | ..... | 14 |
| 15 | Henry J. 4, 513 | AL | MZ-4163 | ..... | 42-53 | 335 | 2.00 | 6.0 | 65.0 | 5.00 | 4300 | Ben | Sol | Pbd | F | 124 | .375 | 13.78 | C-H | No | Hall | Hall | Hall | Vib | 1 | DR | ..... | 15 |
| 16 | 6, 154 | AL | MZ-4163 | ..... | 42-53 | 335 | 2.00 | 6.0 | 65.0 | 5.00 | 4300 | Ben | Sol | Pbd | F | 124 | .375 | 13.78 | C-H | No | Hall | Hall | Hall | Vib | 1 | DR | ..... | 16 |
| 17 | Hudson 6, 4A | AL | MZ-4164 | 120 | 42-53 | 280 | 2.00 | 4.4 | 70.0 | 5.50 | 4300 | Ben | Sol | Pbd | R | 134 | .406 | 14.90 | PC | No | Hall | AL | AL | AE | 2 | SW | 15 | 17 |
| 18 | 6, 5A, 6A | AL | MCH-6109 | 120 | 42-53 | 335 | 2.00 | 6.0 | 65.0 | 5.50 | 4900 | Ben | Sol | Pbd | R | 134 | .406 | 14.90 | PC | No | Hall | Hall | AL | AE | 2 | SW | 15 | 18 |
| 19 | 6, 7A | AL | MCH-6109 | 120 | 42-53 | 335 | 2.00 | 6.0 | 65.0 | 5.50 | 4900 | Ben | Sol | Pbd | R | 134 | .406 | 14.90 | PC | No | Hall | Hall | AL | AE | 2 | SW | 15 | 19 |
| 20 | 8, 8A | AL | MCH-6109 | 120 | 42-53 | 335 | 2.00 | 6.0 | 65.0 | 5.50 | 4900 | Ben | Sol | Pbd | R | 134 | .406 | 14.90 | PC | No | Hall | Hall | AL | AE | 2 | SW | 15 | 20 |
| 21 | Kaiser 6, 511, 512 | DR | X10269 | ..... | 22-32 | 525 | 3.70 | 12.0 | 70.0 | 5.00 | 5000 | Ben | Sol | Pbd | F | ..... | ..... | ..... | C-H | No | Hall | Hall | Hall | Vib | 2 | Opt | ..... | 21 |
| 22 | Lincoln V8, 1EL, 1EH | Own | 8EL | 120 | 48-56 | 550 | 3.25 | 15.0 | 52.5 | 5.80 | 6000 | Ben | Sol | Pbd | R | 120 | .375 | 12.00 | Var | No | Own | Own | Own e | AE | 2 | W-A | 11 | 22 |
| 23 | Mercury V8, 1CM | Own | 7RM | 130 | 48-56 | 550 | 3.75 | 15.0 | 52.5 | 5.80 | 6000 | Ben | Sol | Pbd | R | 112 | .375 | 11.20 | ..... | No | Own | Own | Own | AE | 2 | Var | 11 | 23 |
| 24 | Nash 6, 5100 | DR | 1109463 | ..... | 24-28 | 555 | 3.20 | 12.2 | 55.0 | 5.70 | 5000 | Ben | Man | Dcp | R | 122 | .438 | 13.55 | Dgs | No | Hall | Uc | AL | Vib | 2 | EA | 12 | 24 |
| 25 | 6, 5140 | DR | 1109463 | ..... | 24-28 | 555 | 3.20 | 12.2 | 55.0 | 5.70 | 5000 | Ben | Man | Dcp | R | 122 | .438 | 13.55 | Dgs | No | Hall | AL | AL | Vib | 2 | AL | 15 | 25 |
| 26 | 6, 5160 | DR | 1107950 | ..... | 24-28 | 600 | 3.00 | 16.0 | 60.0 | 5.00 | 6000 | Ben | Man | Dcp | R | 104 | .438 | 11.55 | Dgs | No | Hall | AL | AL | Vib | 2 | AL | 15 | 26 |
| 27 | Oldsmobile V8, 88, 98 | DR | 1107982 | 120 | 24-28 | 600 | 3.00 | 15.0 | 60.0 | 5.70 | 5500 | ..... | Sol | Pbd | F | 145 | .375 | 16.11 | DR | No | Gu | Gu | Gu | Vib | 2 | DR | 18-20 | 27 |
| 28 | Packard 8, 200 | (a) | (a) | ..... | ..... | (b) | (c) | (d) | ..... | ..... | ..... | Ben | Sol | Pbd | F | 140 | ..... | 15.55 | ..... | No | ..... | ..... | ..... | ..... | 2 | SW | 22-25 | 28 |
| 29 | 8, 300, 400 | (a) | (a) | ..... | ..... | (b) | (c) | (d) | ..... | ..... | ..... | Ben | Sol | Pbd | F | 140 | ..... | 15.55 | ..... | No | ..... | ..... | ..... | ..... | 2 | SW | 22-25 | 29 |
| 30 | Plymouth 6, P-22, P-23 | AL | MCH-6101 | ..... | 42-53 | 335 | 2.00 | 6.00 | 57.5 | 6.00 | 4900 | Ben | Sol | Tik | F | 146 | .375 | 16.22 | ..... | No | ..... | ..... | ..... | Vib | (f) | ..... | 15 | 30 |
| 31 | Pontiac 6, 1951-25 | DR | 1107079 | 121 | 24-28 | 525 | 3.37 | 12.0 | 65.0 | 5.67 | 5000 | Sgo | Sol | Pbd | F | 140 | .500 | 15.55 | DR | No | Gu | Gu | Gu | Vib | 2 | DR | 16-17 | 31 |
| 32 | 8, 1951-27 | DR | 1107957 | 118 | 24-28 | 600 | 3.00 | 15.0 | 60.0 | 5.00 | 6000 | Sgo | Sol | Pbd | F | 140 | .500 | 15.55 | DR | No | Gu | Gu | Gu | Vib | 2 | DR | 16-17 | 32 |
| 33 | Studebaker 6, 10G | AL | MZ-4157 | 130 | 42-53 | 560 | 4.00 | 11.8 | 70.0 | 5.50 | 4300 | Ben | Sol | Dcp | F | 124 | .375 | 13.77 | Dgs | No | C-B | C-B | C-B | Vib | 2 | D-W | 12-15 | 33 |
| 34 | V8, H | DR | 1107089 | 100 | 24-28 | 525 | 3.40 | 12.0 | 65.0 | 5.70 | 5000 | Ben | Sol | Dcp | F | 133 | .375 | 14.78 | Dgs | No | C-B | C-B | C-B | Vib | 2 | D-W | 18 | 34 |
| 35 | Willys 4, 473-SD | AL | MZ-4162 | 185 | 42-53 | 280 | 2.00 | 4.4 | 68.0 | 5.00 | 4000 | Sgo | Man | Dsp | F | 124 | .375 | 13.78 | C-H | No | H-C | C-B | C-B | Vib | 1 | W-A | 7-9 | 35 |
| 36 | 6, 673-SW | AL | MZ-4162 | 185 | 42-53 | 280 | 2.00 | 4.4 | 68.0 | 5.00 | 4000 | Sgo | Man | Dsp | F | 124 | .375 | 13.78 | C-H | No | H-C | C-B | C-B | Vib | 1 | W-A | 7-9 | 36 |

**ABBREVIATIONS**

♣—Powerglide model, available at extra cost

(a)—Auto-Lite MCL-6113, or Delco-Remy 1107943

(b)—Auto-Lite 875 amp; Delco-Remy 600 amp

(c)—Auto-Lite 4 volts; Delco-Remy 3 volts

(d)—Auto-Lite 25 lb ft; Delco-Remy 16 lb ft

(e)—D-41 one, D-42 two

(f)—P-22 one, D-23 two

**AE**—Air electric

**AL**—The Electric Auto-Lite Co.

**Ben**—Bendix

**C-B**—Corcoran-Brown Lamp Div.

**C-H**—Cole-Hersee

**Dap**—Depress accelerator pedal

**Dcp**—Depress clutch pedal

**Dgs**—H. A. Douglas Mfg. Co.

**DR**—Delco-Remy Div.

**Dsp**—Depress starter pedal

**D-W**—Delco-Remy and Sparks-Withington

**EA**—E. A. Laboratories, Inc.

**F**—Front **Gu**—Guide Lamp Div.

**Hall**—C. M. Hall Lamp Co.

**H-C**—Hall or Corcoran-Brown

**Man**—Manual **Opt**—Optional

**Pbd**—Push button on dash

**PC**—Pollach and Cole-Hersee

**R**—Rear **RBM**—RBM Div.

**Sgo**—Sliding gear with overrunning

**Sol**—Solenoid {clutch

**SW**—Sparks-Withington Co.

**Tik**—Turn ignition key beyond "on" position

**Uc**—Ucinite

**Var**—Various

**Vib**—Vibrator

**W-A**—Sparks-Withington and Auto-Lite

***For Directory of the Manufacturers listed above, see page 190.***

## 1951 PASSENGER CARS

# GENERATORS AND CLUTCHES

| Line Number | PASSENGER CAR MAKE AND MODEL | GENERATOR | | | | | | | | | | | | | | | | | | | | CLUTCH | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Maximum Controlled Charging Rate | | | | Cutout Relay | | | Voltage Regulator | | | Current Regulator | | | | | | | | | Facings | | | | |
| | | Make | Model | Type | Brush Spring Tension (Oz.) | Charging Control | Temperature (°F) | Amperes | Voltage | R.P.M. | Voltage at Closing | Amperes to Open Reverse Current | Average Air Gap (In.) | Volts | Temperature (°F) | Average Air Gap (In.) | Amperes | Temperature (°F) | Average Air Gap (In.) | Car Speed Max. Charging Rate—M.P.H. | Ammeter—Make | Make | Drive Type | Semi-Centrifugal | Vibration Insulator | Material | Inside Diam. (In.) | Outside Diam. (In.) | Thickness (In.) | No. Required | Line Number |
| 1 | Buick 8, 40 | DR | 1102754 | Shu | 24-32 | CV | Hot | 40 | 8.0 | 2400 | 6.1-6.8 | 1-6 | .020 | 7.40 | 150 | .075 | 40-46 | 150 | .075 | 25.0 | AC | Own* | Dff | No | Spr | WA | 6 | 10 | .125 | 2 | 1 |
| 2 | 8, 50 | DR | 1102754 | Shu | 24-32 | CV | Hot | 40 | 8.0 | 2400 | 6.1-6.8 | 1-6 | .020 | 7.40 | 150 | .075 | 40-46 | 150 | .075 | 25.0 | AC | Own* | Dff | No | Spr | WA | 6 | 10 | .125 | 2 | 2 |
| 3 | 8, 70 | DR | 1102754 | Shu | 24-32 | CV | Hot | 40 | 8.0 | 2400 | 6.1-6.8 | 1-6 | .020 | 7.40 | 150 | .075 | 40-46 | 150 | .075 | 25.0 | AC | None | | | | | | | | 3 |
| 4 | Cadillac V8, 61 | DR | 1102700 | Shu | 24-28 | CV | 150 | 43 | 8.0 | 2400 | 5.9-6.8 | | .020 | 7.0-7.7 | 150 | .075 | 40-46 | 150 | .075 | 28.0 | AC | Long | Dff | Yes | Spr | WA | 7 | $10\frac{1}{2}$ | .137 | 2 | 4 |
| 5 | V8, 62, 60 | DR | 1102700 | Shu | 24-28 | CV | 150 | 43 | 8.0 | 2400 | 5.9-6.8 | | .020 | 7.0-7.7 | 150 | .075 | 40-46 | 150 | .075 | 28.0 | AC | None | | | | | | | | | 5 |
| 6 | V8, 75 | DR | 1102700 | Shu | 24-28 | CV | 150 | 43 | 8.0 | 2400 | 5.9-6.8 | | .020 | 7.0-7.7 | 150 | .075 | 40-46 | 150 | .075 | 28.0 | AC | Long | Dff | Yes | Spr | WA | 7 | 11 | .137 | 2 | 6 |
| 7 | Chevrolet 6, JJ, JK | DR | 1102749 | Shu | 24-32 | CV | Hot | 38 | 7.4 | 2400 | 5.9-6.8 | 0-4 | .020 | 7.0-7.7 | Opr | .080 | 32-40 | Opr | .080 | 25.7 | AC | (a) | Dff | No | Spr | WM | $6\frac{1}{8}$ | $9\frac{1}{8}$ | .135 | 2 | 7 |
| 8 | 6, 2100♣ | DR | 1102749 | Shu | 24-32 | CV | Hot | 38 | 7.4 | 2400 | 5.9-6.8 | 0-4 | .020 | 7.0-7.7 | Opr | .080 | 32-40 | Opr | .080 | Var | AC | None | | | | | | | | | 8 |
| 9 | Chrysler 6, C-51-1 | AL | GGU6001R | Shu | 35-53 | CV | Hot | 45 | 8.0 | 2460 | 6.4-7.0 | 4-6 | .032 | 7.1-7.4 | 70 | .050 | 40-51 | | .050 | 25.0 | | | | | | | | | | | 9 |
| 10 | 6, C-51-2 | AL | GGU6001R | Shu | 35-53 | CV | Hot | 45 | 8.0 | 2460 | 6.4-7.0 | 4-6 | .032 | 7.1-7.4 | 70 | .050 | 40-51 | | .050 | 25.0 | | | Dff | No | Spr | WMA | 7 | 10 | .125 | 2 | 9 |
| 11 | V8, C-52, C-54 | AL | GGU6001R | Shu | 35-53 | CV | Hot | 50 | 8.0 | 1840 | 6.4-7.0 | 4-6 | .032 | 7.1-7.4 | 70 | .050 | 40-51 | | .050 | 25.0 | | | Ff♥ | No | Spr | WMA | 6 | $9\frac{1}{4}$ | .125 | 2 | 10 |
| 12 | V8, C-53 | AL | GGJ-6003A | Shu | 30-37 | CV | Hot | 55 | 8.0 | 1760 | 6.4-7.0 | 4-6 | .032 | 7.1-7.4 | 70 | .050 | 50 | | .050 | 25.0 | | | Ff♥ | No | Spr | WMA | 6 | $9\frac{1}{4}$ | .125 | 2 | 11 |
| 13 | Crosley CD, VC | AL | GDZ-4806 | Shu | 35-53 | CV | | 35 | 8.0 | 1800 | 6.4-7.0 | 4-6 | .032 | 7.35 | 70 | | 34-36 | | .050 | 40.0 | SW | Rock | Dff | No | | MA | $4\frac{1}{2}$ | $6\frac{1}{2}$ | .125 | 2 | 12 |
| 14 | DeSoto 6, S-15-1 | AL | GGW6001J | Shu | 35-53 | CV | Hot | 45 | 8.0 | 2460 | 6.4-7.0 | 4-6 | .032 | 7.2-7.5 | 70 | .050 | 45-57 | | .050 | 25.0 | | | | | | | | | | | 13 |
| 15 | 6, S-15-2 | AL | GGW6001J | Shu | 35-53 | CV | Hot | 45 | 8.0 | 2460 | 6.4-7.0 | 4-6 | .032 | 7.2-7.5 | 70 | .050 | 45-47 | | .050 | 25.0 | | | Dff | No | Spr | WMA | 7 | 10 | .125 | 2 | 14 |
| 16 | Dodge 6, D-41, D-42 | AL | GGW6001K | Shu | 35-53 | CV | Hot | 45 | 8.0 | 2460 | 6.4-7.0 | 4-6 | .032 | 7.2-7.5 | 70 | .050 | 45-47 | | .050 | 25.0 | | | Ff♥ | No | Spr | WMA | 6 | $9\frac{1}{4}$ | .125 | 2 | 15 |
| | | | | | | | | | | | | | | | | | 45-57 | | .050 | 25.0 | | | Ff♥ | No | Spr | WMA | 6 | $9\frac{1}{4}$ | .125 | 2 | 16 |
| 17 | Ford 6, IHA | Own | OHA | Shu | 26-34 | CV | 98 | 35 | 7.1 | 1700 | 6.0-6.6 | 8 | .011 | 7.2-7.6 | 75 | .034 | 34-38 | 75 | .034 | 19.2 | Own | | Dff | Yes | Spr | WA | 6 | $9\frac{1}{2}$ | .125 | 2 | 17 |
| 18 | 8, 8BA | Own | 8BA | Shu | 26-34 | CV | 98 | 35 | 7.1 | 1700 | 6.0-6.6 | 8 | .011 | 7.2-7.6 | 75 | .034 | 34-38 | 75 | .034 | 18.5 | Own | | Dff | Yes | Spr | WA | 6 | $9\frac{1}{2}$ | .125 | 2 | 18 |
| 19 | Frazer 6, 515, 516 | AL | GDZ-4818A | Shu | 35-53 | CV | 70 | 35 | 7.2 | 2250 | 6.4-7.0 | 4-5 | .032 | 7.35 | 70 | .050 | 34-36 | 70 | .050 | 24.0 | AL | (b) | Dff | | Spr | WA | 6 | $9\frac{1}{4}$ | .125 | 2 | 19 |
| 20 | Henry J 4, 513 | AL | GDZ-6001E | Shu | 35-53 | CV | 80 | 34 | 8.0 | 1800 | 6.4-7.0 | 4-5 | .032 | 7.35 | 70 | .050 | 34-36 | 70 | .050 | | KS | (c) | Dff | | Spr | MA | $5\frac{1}{8}$ | $8\frac{1}{2}$ | .135 | 2 | 20 |
| 21 | 6, 514 | AL | GDZ-6001E | Shu | 35-53 | CV | 80 | 34 | 8.0 | 1800 | 6.4-7.0 | 4-5 | .032 | 7.35 | 70 | .050 | 34-36 | 70 | .050 | | KS | (c) | Dff | | Spr | MA | $5\frac{1}{8}$ | $8\frac{1}{2}$ | .135 | 2 | 21 |
| 22 | Hudson 6, 4A | AL | GDZ-6001B | Shu | 35-53 | CV | Hot | 35 | 8.0 | 2350 | 6.4-7.0 | 4-6 | .032 | 7.2-7.5 | 70 | .050 | 35 | 70 | .050 | 25.0 | IL | Own | Dff | | Spr | Cork | $5\frac{1}{8}$ | $8\frac{1}{2}$ | .203 | 90 | 22 |
| 23 | 6, 5A, 6A | AL | GDZ-6001B | Shu | 35-53 | CV | Hot | 35 | 8.0 | 2350 | 6.4-7.0 | 4-6 | .032 | 7.2-7.5 | 70 | .050 | 35 | 70 | .050 | 25.0 | IL | Own | Dff | | Spr | Cork | $6\frac{1}{8}$ | $9\frac{1}{2}$ | .203 | 108 | 23 |
| 24 | 6, 7A | AL | GDZ-6001B | Shu | 35-53 | CV | Hot | 35 | 8.0 | 2350 | 6.4-7.0 | 4-6 | .032 | 7.2-7.5 | 70 | .050 | 35 | 70 | .050 | 25.0 | IL | Own | Dff | | Spr | Cork | $6\frac{1}{8}$ | $9\frac{1}{2}$ | .203 | 108 | 24 |
| 25 | 6, 8A | AL | GDZ-6001B | Shu | 35-53 | CV | Hot | 35 | 8.0 | 2350 | 6.4-7.0 | 4-6 | .032 | 7.2-7.5 | 70 | .050 | 35 | 70 | .050 | 25.0 | IL | Own | Dff | | Spr | Cork | $6\frac{1}{8}$ | $9\frac{1}{2}$ | .203 | 108 | 25 |
| 26 | Kaiser 6, 511, 512 | DR | 1102733 | Shu | 24-32 | CV | 75 | 41 | 7.2 | 2050 | 6.0-6.8 | | | 6.9-7.5 | 75 | | 41 | 75 | | | KS | (b) | Dff | | Spr | WA | 6 | $9\frac{1}{4}$ | .125 | 2 | 26 |
| 27 | Lincoln V8, 1EL, 1EH | Own | 8EL | Shu | 26-34 | CV | 90 | 40 | 7.1 | 1675 | 6.0-6.6 | 8 | .011 | 7.2-7.6 | 75 | .034 | 38-42 | | .034 | 24.0 | Own | Long | Dff | Yes | Spr | WA | 7 | $10\frac{1}{2}$ | .125 | 2 | 27 |
| 28 | Mercury V8, 1CM | Own | 8BA | Shu | 26-34 | CV | 98 | 35 | 7.1 | 1700 | 6.0-6.6 | 8 | .011 | 7.2-7.6 | 75 | .034 | 34-38 | 75 | .034 | 17.8 | Own | B & B | Dff | No | Spr | WA | $6\frac{1}{4}$ | 10 | .125 | 2 | 28 |
| 29 | Nash 6, 5110 | DR | 1102730 | Shu | 24-28 | CV | | 34 | 7.3 | 1800 | 6.2-6.7 | 4-6 | .020 | 7.2-7.4 | | .075 | 32-35 | | .075 | 19.0 | KS | B & B | Dff | No | Spr | WA | $5\frac{1}{8}$ | 8 | .125 | 2 | 29 |
| 30 | 6, 5140 | DR | 1102730 | Shu | 24-28 | CV | | 34 | 7.3 | 1800 | 6.2-6.7 | 4-6 | .020 | 7.2-7.4 | | .075 | 32-35 | | .075 | | AL | B & B | Dff | No | Spr | WA | $5\frac{1}{8}$ | 8 | .125 | 2 | 30 |
| 31 | 6, 5160 | DR | 1102730 | Shu | 24-28 | CV | | 34 | 7.3 | 1800 | 6.2-6.7 | 4-6 | .020 | 7.2-7.4 | | .075 | 32-35 | | .075 | | AL | B & B | Dff | No | Spr | WA | 7 | 10 | .125 | 2 | 31 |
| 32 | Oldsmobile V8, 88, 98 | DR | 1102704 | Shu | 24-28 | CV | 70 | 40 | 8.0 | 1880 | 6.5 | 0-4 | .020 | 7.3 | 150 | .075 | 40 | 150 | .075 | (d) | AC | Long | Dff | Yes | Spr | WA | 7 | $10\frac{1}{2}$ | .136 | 2 | 32 |
| 33 | Packard 8, 200 | (e) | (e) | Shu | | CV | | 40 | 7.4 | | 6.5-7.0 | | | | | | | | | | | | | | | | | | | | 33 |
| 34 | 8, 300 | (e) | (e) | Shu | | CV | | 40 | 7.4 | | 6.5-7.0 | | | | | | | | | | | | Dff | | Spr | WA | $6\frac{1}{4}$ | 10 | .125 | 2 | 34 |
| 35 | 8, 400 | (e) | (e) | Shu | | CV | | 40 | 7.4 | | 6.5-7.0 | | | | | | | | | | | | Dff | | Spr | WA | 7 | $10\frac{1}{2}$ | .125 | 2 | 35 |
| 36 | Plymouth 6, P-22, P-23 | AL | GGW-6001K | Shu | 35-53 | CV | Hot | 45 | 8.0 | 2460 | 6.4-7.0 | 4-6 | .032 | 7.2-7.5 | 70 | .050 | 45-57 | | .050 | 25.0 | | None | | | | | | | | | 36 |
| 37 | Pontiac 6, 1951-25 | DR | 1102750 | Shu | 28 | CV | Cold | 40 | 8.0 | 1950 | 5.9-6.8 | | .020 | 7.0-7.7 | Hot | .075 | 40-46 | Hot | .075 | 20.5 | AC | Inl | Dff | No | Spr | WMA | 6 | $9\frac{1}{4}$ | .114 | 2 | 37 |
| 38 | 8, 1951-27 | DR | 1102750 | Shu | 28 | CV | Cold | 40 | 8.0 | 1950 | 5.9-6.8 | | .020 | 7.0-7.7 | Hot | .075 | 40-46 | Hot | .075 | 22.0 | AC | Inl | Dff | No | Spr | WA | $6\frac{1}{4}$ | 10 | .125 | 2 | 38 |
| 39 | Studebaker 6, 10G | AL | GDZ-4804A | Shu | 53 | CV | 70 | 40 | 7.4 | 1900 | 6.4-6.6 | | .036 | 7.35 | 70 | .050 | 40 | 70 | .050 | 21.2 | SW | B & B | Dff | No | Spr | MM | $5\frac{1}{8}$ | 8 | .125 | 2 | 39 |
| 40 | V8, H | DR | 1102700 | Shu | 25 | CV | 70 | 40 | 7.5 | 1900 | 6.4 | | .020 | 7.4 | 70 | .075 | 40 | 70 | .075 | 23.6 | SW | B & B | Dff | No | Spr | MM | 6 | $9\frac{1}{4}$ | .125 | 2 | 40 |
| 41 | Willys 4, 473-SD | AL | GDZ-6001D | Shu | 35-53 | CV | Hot | 35 | 8.0 | 2250 | 6.4-6.9 | 4-5 | .032 | 7.35 | 70 | .050 | 34-36 | Hot | .050 | | KS | (f) | Dff | | Spr | MA | $5\frac{1}{8}$ | $8\frac{1}{2}$ | .135 | 2 | 41 |
| 42 | 6, 673-SW | AL | GDZ-6001D | Shu | 35-53 | CV | Hot | 35 | 8.0 | 2250 | 6.4-6.9 | 4-5 | .032 | 7.35 | 70 | .050 | 34-36 | Hot | .050 | | KS | (f) | Dff | | Spr | MA | $5\frac{1}{8}$ | $8\frac{1}{2}$ | .135 | 2 | 42 |

**ABBREVIATIONS**

•—Long or Borg & Beck disk
♣—Powerglide model, available at extra cost
♥—Auxiliary clutch with fluid coupling
(a)—Driven disk—own and Borg & Beck; remainder—own and Inland
(b)—Borg & Beck or Auburn
(c)—Drive plate assembly—Borg & Beck; remainder—Auburn
(d)—Model 88, 22 mph; model 98, 21 mph
(e)—AL—GGW-6003A or DR—1102745
(f)—Driving plate—Auburn; remainder Borg & Beck
**AC**—AC Spark Plug Div.
**AL**—The Electric Auto-Lite Co.
**B & B**—Borg & Beck Div.
**CV**—Current and voltage regulator
**DR**—Delco-Remy Div.
**Dff**—Direct to flywheel face
**Ff**—Fluid flywheel
**IL**—Indicating light
**Inl**—Inland Mfg. Co.
**KS**—King-Seeley Corp.
**Long**—Long Mfg. Div.
**MA**—Molded asbestos
**MM**—Molded metallic
**Opr**—Operating temperature
**Rock**—Rockford Clutch Div.
**Shu**—Shunt
**Spr**—Spring
**SW**—Stewart-Warner Corp.
**Var**—Various
**WA**—Woven asbestos
**WM**—Woven or molded asbestos
**WMA**—Woven molded asbestos

***For Directory of the Manufacturers listed above, see page 190.***

1951 PASSENGER CARS

# TRANSMISSIONS AND UNIVERSAL JOINTS

| Line Number | PASSENGER CAR MAKE AND MODEL | TRANSMISSION: Conventional | TRANSMISSION: Automatic: Name | TRANSMISSION: Automatic: Type | OVERDRIVE: Make | OVERDRIVE: Lubrication: Capacity (Pts.) | OVERDRIVE: Lubrication: Grade S.A.E. No.: Summer | OVERDRIVE: Lubrication: Grade S.A.E. No.: Winter | GEAR RATIOS—STD. (to-1): Rear Axle | GEAR RATIOS—STD. (to-1): Transmission: Overdrive | Low | Second | Reverse | Constant Mesh Gears on Second | TYPE GEARS: Second Speed | First Speed | Reverse | Synchronous Meshing Second and Third Gears | TRANSMISSION LUBRICATION: Capacity (Pts.) | Grade S.A.E. No.: Summer | Winter | UNIVERSAL JOINTS: Make | Number Used | Type | Lubricated With | Drive Medium | Torque | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Buick 8, 40 | Yes | Dynaflow* | TC | None | | | | 3.90 | None | 2.67 | 1.66 | 3.02 | Yes | Hel | Hel | Hel | Yes | 18¼ | 90 | 90 | S-S | 1 | Mp | TL | TT | TT | 1 |
| 2 | 8, 50 | Yes | Dynaflow* | TC | None | | | | 3.90 | None | 2.67 | 1.66 | 3.02 | Yes | Hel | Hel | Hel | Yes | 18¼ | 90 | 90 | S-S | 1 | Mp | TL | TT | TT | 2 |
| 3 | 8, 70 | No | Dynaflow | TC | None | | | | 3.60 | None | 4.06 | If | 4.06 | None | None | H-P | H-P | No | 22 | Own | Own | Sag | 1 | Mp | TL | TT | TT | 3 |
| 4 | Cadillac V8, 61 | Yes | Hydra-Matic* | Hyd | None | | | | 3.36 | None | 2.39 | 1.53 | 2.39 | Yes | H-P | H-P | H-P | Yes | 33¼ | 90 | 90 | Mec | 2 | Nb | Gp | Spr | Spr | 4 |
| 5 | V8, 62, 60 | No | Hydra-Matic | Hyd | None | | | | 3.36 | None | 3.82 | 2.63 | 4.30 | | Hel | Hel | Hel | No | 24 | Own | Own | Mec | 2 | Nb | Gp | Spr | Spr | 5 |
| 6 | V8, 75 | Yes | Hydra-Matic* | Hyd | None | | | | 4.27 | None | 2.39 | 1.53 | 2.39 | Yes | Hel | Hel | Hel | Yes | 33¼ | 90 | 90 | Mec | 3 | Nb | Gp | Spr | Spr | 6 |
| 7 | Chevrolet 6, JJ, JK | Yes | None | | None | | | | 4.11 | None | 2.94 | 1.68 | 2.94 | Yes | Hel | Hel | Hel | Yes | 1½ | 90 | 90 | Own | 1 | Mp | TL | Spr | TT | 7 |
| 8 | 6, 2100♣ | No | Powerglide | TC | None | | | | 3.55 | None | 1.82 | If | 1.82 | None | None | H-P | H-P | No | 18 | A | A | Own | 1 | Mp | TL | Spr | TT | 8 |
| 9 | Chrysler 6, C-51-1 | Yes | Presto-matic* | Hyd | None | | | | 3.90 | None | 2.57 | 1.83 | 3.48 | Yes | Hel | Hel | Hel | Yes | 23¼ | 10W | 10W | .. | 2 | Ma | Gr | Spr | Spr | 9 |
| 10 | 6, C-51-2 | No | Presto-matic | Hyd | None | | | | 3.73 | None | 3.57 | 2.04 | 3.99 | Yes | Hel | Hel | Hel | Yes | 3 | 10W | 10W | | 2 | Ma | Gr | Spr | Spr | 10 |
| 11 | V8, C-52, C-54 | No | Presto-matic | Hyd | None | | | | 3.73 | None | 3.57 | 2.04 | 3.99 | Yes | Hel | Hel | Hel | Yes | 3 | 10W | 10W | | 2 | Ma | Gr | Spr | Spr | 11 |
| 12 | V8, C-53 | No | Torque Converter | TC | None | | | | 3.54 | None | 3.28 | 2.04 | 3.69 | Yes | Hel | Hel | Hel | Yes | ZI | 10W | 10W | | 3 | Ma | Gr | Spr | Spr | 12 |
| 13 | Crosley 4, CD, VC | Yes | None | | None | | | | 5.17 | None | 3.29 | 1.722 | 3.29 | No | Spur | Spur | Spur | No | 1 | 90 | 90 | NEA | 1 | Mp | Gr | TT | TT | 13 |
| 14 | DeSoto 6, S-15-1 | Yes | Tip-Toe Shift* | Hyd | None | | | | 3.90 | None | 2.57 | 1.83 | 3.48 | Yes | Hel | Hel | Hel | Yes | 23¼ | 10W | 10W | | 2 | Ma | Gr | Spr | Spr | 14 |
| 15 | 6, S-15-2 | No | Tip-Toe Shift | Hyd | None | | | | 3.90 | None | 3.57 | 2.04 | 3.99 | Yes | Hel | Hel | Hel | Yes | 3 | 10W | 10W | | 2 | Ma | Gr | Spr | Spr | 15 |
| 16 | Dodge 6, D-41, D-42 | Yes | | Hyd | None | | | | 3.90 | None | 2.57 | 1.83 | 3.48 | Yes | Hel | Hel | Hel | Yes | 23¼ | 10W | 10W | | 2 | Ma | Gr | Spr | Spr | 16 |
| 17 | Ford 6, 1HA | Yes | Fordomatic* | TC | * | 4¼ | 80 | 80 | 3.73 | .70* | 2.78 | 1.61 | 3.64 | Yes | Hel | Hel | Hel | Yes | 3¼ | 80 | 80 | | 2 | Nb | Gr | Spr | Spr | 17 |
| 18 | V8, 1BA | Yes | Fordomatic* | TC | * | 4¼ | 80 | 80 | 3.73 | .70* | 2.78 | 1.61 | 3.64 | Yes | Hel | Hel | Hel | Yes | 3¼ | 80 | 80 | | 2 | Nb | Gr | Spr | Spr | 18 |
| 19 | Frazer 6, 515, 516 | Yes | Hydra-Matic* | Hyd | WG* | 1 | 90 | 80 | 3.91 | .70* | 2.57 | 1.55 | 3.49 | Yes | Hel | Hel | Hel | Yes | 2½ | 90 | 80 | UP | 3 | | | Spr | Spr | 19 |
| 20 | Henry J 4,513 | Yes | None | | WG* | ¾ | 90 | 80 | 4.10 | .70* | 2.61 | 1.63 | 3.54 | Yes | Hel | Hel | Hel | Yes | 1½ | 90 | 80 | Spi | 2 | Nb | | Spr | Spr | 20 |
| 21 | 6,514 | Yes | None | | WG* | ¾ | 90 | 80 | 4.10 | .70* | 2.61 | 1.63 | 3.54 | Yes | Hel | Hel | Hel | Yes | 1½ | 90 | 80 | Spi | 2 | Nb | | Spr | Spr | 21 |
| 22 | Hudson 6, 4A | Yes | Super-Matic‡ | E-Vac | WG* | 1¼ | 90 | 80 | 4.10 | .70* | 2.88 | 1.82 | 3.50 | Yes | Hel | Hel | Hel | Yes | 2 | 90 | 80 | Spi | 3 | Nb | Gr | Spr | Spr | 22 |
| 23 | 6, 5A | Yes | Super-Matic‡ | E-Vac | WG* | 1¼ | 90 | 80 | 4.10 | .70* | 2.88 | 1.82 | 3.50 | Yes | Hel | Hel | Hel | Yes | 2 | 90 | 80 | Spi | 3 | Nb | Gr | Spr | Spr | 23 |
| 24 | 6, 6A | Yes | Hydra-Matic* | Hyd | WG* | 1¼ | 90 | 80 | 4.10 | .70* | 2.88 | 1.82 | 3.50 | Yes | Hel | Hel | Hel | Yes | 2 | 90 | 80 | Spi | 3 | Nb | Gr | Spr | Spr | 24 |
| 25 | 6, 7A | Yes | Hydra-Matic* | Hyd | WG* | 1¼ | 90 | 80 | 4.10 | .70* | 2.88 | 1.82 | 3.50 | Yes | Hel | Hel | Hel | Yes | 2 | 90 | 80 | Spi | 3 | Nb | Gr | Spr | Spr | 25 |
| 26 | 8, 8A | Yes | Hydra-Matic* | Hyd | WG* | 1¼ | 90 | 80 | 4.10 | .70* | 2.88 | 1.82 | 3.50 | Yes | Hel | Hel | Hel | Yes | 2 | 90 | 80 | Spi | 3 | Nb | Gr | Spr | Spr | 26 |
| 27 | Kaiser 6, 511, 512 | Yes | Hydra-Matic* | Hyd | WG* | 1 | 90 | 80 | 3.91 | .70* | 2.57 | 1.55 | 3.49 | Yes | Hel | Hel | Hel | Yes | 2½ | 90 | 80 | Spi | 2 | Ma | | Spr | Spr | 27 |
| 28 | Lincoln V8, 1EL, 1EH | Yes | Hydra-Matic* | Hyd | WG* | 3½ | 80 | 80 | 3.91 | .72* | 2.53 | 1.52 | 3.16 | Yes | Hel | Hel | Hel | Yes | 3½ | 80 | 80 | Spi | 2 | Nb | Gr | Spr | Spr | 28 |
| 29 | Mercury V8, 1CM | Yes | Merc-O-Matic* | TC | WG* | 3½ | 80 | 80 | 3.91 | .70* | 2.82 | 1.60 | 3.62 | Yes | Hel | Hel | Hel | Yes | 3½ | 80 | 80 | Mec | 2 | Nb | Gr | Spr | Spr | 29 |
| 30 | Nash 6, 5110 | Yes | None | | WG* | 1¼ | 90 | 80 | 3.78 | .70* | 2.61 | 1.63 | 3.54 | Yes | Hel | Hel | Hel | Yes | 1½ | 90 | 80 | M-S | 2 | Ma | PL | Spr | Spr | 30 |
| 31 | 6, 5140 | Yes | Hydra-Matic* | Hyd | WG* | 1¼ | 90 | 80 | 4.38 | .70* | 2.57 | 1.62 | 3.48 | Yes | Hel | Hel | Hel | Yes | 2¼ | 90 | 80 | M-S | 1 | Ma | PL | TT | TT | 31 |
| 32 | 6, 5160 | Yes | Hydra-Matic* | Hyd | WG* | 1¼ | 90 | 80 | 4.10 | .70* | 2.57 | 1.55 | 3.49 | Yes | Hel | Hel | Hel | Yes | 2¼ | 90 | 80 | M-S | 1 | Ma | PL | TT | TT | 32 |
| 33 | Oldsmobile V8, 88, 98 | Yes | Hydra-Matic* | Hyd | None | | | | (a) | None | 2.39 | 1.53 | 2.53 | Yes | Hel | Hel | Hel | Yes | 2 | 80 | 80 | Sag | 2 | Nb | PL | SA | SA | 33 |
| 34 | Packard 8, 200 | Yes | Ultramatic* | TC | * | 1¼ | 90 | 90 | 3.90 | .76* | 2.43 | 1.53 | 3.16 | Yes | Hel | Hel | Hel | Yes | 2 | 90 | 90 | UMS | 2 | Ma | Gr | Spr | Spr | 34 |
| 35 | 8, 300 | Yes | Ultramatic* | TC | * | 1¼ | 90 | 90 | 3.90 | .76* | 2.43 | 1.53 | 3.16 | Yes | Hel | Hel | Hel | Yes | 2 | 90 | 90 | UMS | 2 | Ma | Gr | Spr | Spr | 35 |
| 36 | 8, 400 | No | Ultramatic | TC | None | | | | 3.54 | None | | If | | None | | | | No | 24 | Own | Own | UP | 2 | Ma | Gr | Spr | Spr | 36 |
| 37 | Plymouth 6, P-22, P-23 | Yes | None | | None | | | | (b) | None | 2.57 | 1.83 | 3.48 | Yes | Hel | Hel | Hel | Yes | 23¼ | 10W | 10W | | 2 | Ma | Gr | Spr | Spr | 37 |
| 38 | Pontiac 6, 1951-25 | Yes | Hydra-Matic* | Hyd | None | | | | 4.10 | None | 2.67 | 1.68 | 3.02 | Yes | Hel | Hel | Hel | Yes | 1¾ | 80 | 80 | M-S | 2 | Ma | Gr | Spr | Spr | 38 |
| 39 | 8, 1951-27 | Yes | Hydra-Matic* | Hyd | None | | | | 3.90 | None | 2.67 | 1.68 | 3.02 | Yes | Hel | Hel | Hel | Yes | 1¾ | 80 | 80 | M-S | 2 | Ma | Gr | Spr | Spr | 39 |
| 40 | Studebaker 6, 10G | Yes | Auto. Drive* | TC | WG* | ¾ | 90 | 90 | 4.10 | .70* | 2.61 | 1.63 | 3.54 | Yes | Hel | Hel | Hel | Yes | 1½ | 90 | 90 | Spi | 3 | Mp | Gr | Spr | Spr | 40 |
| 41 | V8, H | Yes | Auto. Drive* | TC | WG* | ¾ | 90 | 90 | 4.09 | .70* | 2.57 | 1.55 | 3.48 | Yes | Hel | Hel | Hel | Yes | 2½ | 90 | 90 | Spi | 3 | Ma | Gr | Spr | Spr | 41 |
| 42 | Willys 4, 473-SD | Yes | None | | WG* | ¾ | 90 | 80 | 4.88 | .70* | 2.61 | 1.63 | 3.54 | Yes | Hel | Hel | Hel | Yes | 1½ | 90 | 80 | UP | 2 | Ma | Gr | Spr | Spr | 42 |
| 43 | 6, 673-SW | Yes | None | | WG* | ¾ | 90 | 80 | 5.38 | .70* | 2.61 | 1.63 | 3.54 | Yes | Hel | Hel | Hel | Yes | 1½ | 90 | 80 | UP | 2 | Ma | Gr | Spr | Spr | 43 |

**ABBREVIATIONS**

♣—Powerglide model, available at extra cost
*—At extra cost
♯—Includes torque converter ratio of 2.24
‡—Drive Master also available at extra cost
(a)—Model 88, 3.64; model 98, 3.90
(b)—Model P-22, 3.73; model P-23, 3.90
A—Automatic transmission fluid, type A
E-Vac—Electric and vacuum
Gp—Grease—prepacked
Gr—Grease
Hel—Helical
H-P—Helical, planetary
Hyd—Hydraulic shifting mechanism
If—Infinitely variable
Ma—Metal with anti-friction bearing
Mec—Mechanics Universal Joint Div.
Mp—Metal with plain bearing
M-S—Mechanics or Saginaw
Nb—Needle bearing
NEA—New England Auto Products
PL—Permanently lubricated
SA—Stabilizing arms
Sag—Saginaw Steering Gear Div.
Spi—Spicer Mfg. Div.
Spr—Springs
S-S—Saginaw or Spicer
TC—Hydrokinetic torque converter
TL—Transmission lubricant
TT—Torque tube
UMS—Universal Mechanics, or Spicer
UP—Universal Products
WG—Warner Gear

**For Directory of the Manufacturers listed above, see page 190.**

## 1951 PASSENGER CARS

# STEERING AND BRAKES

| Line Number | PASSENGER CAR MAKE AND MODEL | STEERING: Gear Type | Gear Make | Gear Ratio (to 1) | Drag Link-Type | No. of Tie Rods | Intermediate Arm | Car Turning Radius Right (Ft.) | Caster (Deg.) | Camber (Deg.) | Toe-in (In.) | Kingpin Inclination (Deg.) | FOOT BRAKES: Make | Type | Type Lining: Primary Shoe | Type Lining: Secondary Shoe | Drums: Material | Drums: Diameter (In.) | Lining: Length per Wheel (In.) * | Lining: Width (In.) | Lining: Thickness (In.) | Clearance: Toe | Clearance: Heel | Total Foot Braking Area (Sq. In.) | Per Cent Braking on Rear Wheels | HAND BRAKES: Operates | Internal or External | Drum Diameter (In.) | Lining: Length per Drum (In.) | Lining: Width (In.) | Lining: Thickness (In.) | Clearance (In.) | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Buick 8, 40 | BW | Sag | 19.8 | No | 2 | No | 19.75 | 1¼P to 1½P | ½P to ½N | 1/16 to 1/8 | 4¼° | ..... | H | Mo | Mo | Cl | 12 | 23 1/16 | 1¾ | 1/4 | .015 | .015 | 161.5 | 47.0 | RS | | | | | | | 1 |
| 2 | 8, 50 | BW | Sag | 19.8 | No | 2 | No | 19.75 | 1¼P to 1½P | ½P to ½N | 1/16 to 1/8 | 4½° | ..... | H | Mo | Mo | Cl | 12 | 23 1/16 | 1¾ | 1/4 | .015 | .015 | 161.5 | 47.0 | RS | | | | | | | 2 |
| 3 | 8, 70 | BW | Sag | 23.6 | No | 2 | No | 20.90 | 1¼P to 1½P | ½P to ½N | 1/16 to 1/8 | 4¼° | ..... | H | Mo | Mo | Cl | 12 | 23 1/16 | 2¼ | 1/4 | .015 | .015 | 207.5 | 47.0 | RS | | | | | | | 3 |
| 4 | Cadillac V8, 61, 62, 60 | RS | Sag | 21.3 | Tra | 2 | No | 22.50 | 1½N to 1½P | ½N to ½P | 1/16 to 1/8 | 5°51'‡ | B-M | H | Mo | Mo | Co | 11 | 22 23/32 | 2½ | 1/4 | .008 | .008 | 224.5 | 44.2 | RS | | | | | | | 4 |
| 5 | V8, 75 | RS | Sag | 21.3 | Tra | 2 | No | 25.50 | 1½N to 1½P | ½N to ½P | 1/16 to 1/8 | 5°51'‡ | B-M | H | Mo | Mo | Co | 12 | 25 11/32 | 2½ | 1/4 | .008 | .008 | 258.5 | 44.2 | RS | | | | | | | 5 |
| 6 | Chevrolet 6, JJ, JK | WR | Sag | 19.4 | Lg | 2 | Y | 18.50 | 1/16 to 1/8 | 1/16 to 1/8 | 0 to 1/8 | 4 to 4½ | Own | H | Mo | Mo | Co | 11 | 20 5/8 | (a) | 1/4 | (b) | (b) | 161.0 | 44.1 | RS | | | | | | | 6 |
| 7 | 6, 2100▲ | WR | Sag | 19.4 | Lg | 2 | Y | 18.50 | 1/16 to 1/8 | 1/16 to 1/8 | 0 to 1/8 | 4 to 4½ | Own | H | Mo | Mo | Co | 11 | 20 5/8 | (a) | 1/4 | (b) | (b) | 161.0 | 44.1 | RS | | | | | | | 7 |
| 8 | Chrysler 6, C-51-1 | WR | ..... | 18.2 | Lg | 2 | Y | ..... | 1N to 3N | ½N to ½P | 0 to 1/8 | 5 to 6½ | Own | H | Mo | Mo | Ce | 12 | 25 1/16 | 2 | 1/4 | .008 | .008 | 201.1 | 40.0 | T | Ext | 6 | 15 1/16 | 2 | 1/4 | .018 | 8 |
| 9 | 6, C-51-2 | WR | ..... | 18.2 | Lg | 2 | Y | ..... | 1N to 3N | ½N to ½P | 0 to 1/8 | 5 to 6½ | Own | H | Mo | Mo | Ce | 12 | 25 1/16 | 2 | 1/4 | .008 | .008 | 201.1 | 40.0 | T | Int | 7 | 13 1/16 | 2 | 1/4 | (c) | 9 |
| 10 | V8, C-52, C-54 | WR | ..... | 20.4 | Lg | 2 | Y | ..... | 1N to 3N | ½N to ½P | 0 to 1/8 | 5 to 6½ | Own | H | Mo | Mo | Ce | 12 | 25 1/16 | 2 | 1/4 | .008 | .008 | 201.1 | 40.0 | T | Int | 7 | 13 1/16 | 2 | 1/4 | (c) | 10 |
| 11 | V8, C-53 | WR | ..... | 20.4 | Lg | 2 | Y | ..... | 1N to 3N | ½N to ½P | 0 to 1/8 | 6½ to 8 | Own | H | Mo | Mo | Cl | 12 | (d) | 1½ | 1/4 | SA | SA | 260.0 | 40.0 | T | Int | 7 | 13 1/16 | 2 | 1/4 | (c) | 11 |
| 12 | Crosley 4, CD, VC | CL | Rose | 17.5 | Lg | 1 | No | 15.00 | 7½ | 2 | 1/4 to 1/8 | 6½ | GH | H | Mo | Mo | Cl | 7½ | (e) | (e) | 5/8 | ..... | ..... | 9.8 | 40.0 | RS | | | | | | | 12 |
| 13 | DeSoto 6, S-15-1 | WR | ..... | 18.2 | Lg | 2 | Y | ..... | 1N to 3N | ½N to ½P | 0 to 1/8 | 5 to 6½ | Own | H | Mo | Mo | Cl | 12 | 25 1/16 | 2 | 1/4 | .008 | .008 | 201.1 | 40.0 | T | Ext | 6 | 15 1/16 | 2 | 1/4 | .018 | 13 |
| 14 | 6, S-15-2 | WR | ..... | 18.2 | Lg | 2 | Y | ..... | 1N to 3N | ½N to ½P | 0 to 1/8 | 5 to 6½ | Own | H | Mo | Mo | Cl | 12 | 25 1/16 | 2 | 1/4 | .008 | .008 | 201.1 | 40.0 | T | Int | 7 | 13 1/16 | 2 | 1/4 | (c) | 14 |
| 15 | Dodge 6, D-41 | WR | ..... | 18.2 | No | 2 | No | ..... | 1N to 1N | ½N to ½P | 0 to 1/8 | 5 to 6½ | Own | H | Mo | Mo | Cl | 11 | (f) | 2 | 1/4 | .008 | .008 | 158.0 | 40.0 | T | Ext | 6 | 15 1/16 | 2 | 1/4 | .018 | 15 |
| 16 | 6, D-42 | WR | ..... | 18.2 | No | 2 | No | ..... | 1N to 1N | ½N to ½P | 0 to 1/8 | 5 to 6½ | Own | H | Mo | Mo | Cl | 11 | (g) | 2 | 1/4 | .008 | .008 | 173.5 | 40.0 | T | Ext | 6 | 15 1/16 | 2 | 1/4 | .018 | 16 |
| 17 | Ford 6, 1HA | WR | Own | 17.7 | Tra | 2 | Y | 20.50 | 1/2P to 1N | 0 to 1P | 1/16 to 1/8 | 5½ | ..... | H | Mo | Mo | Cl | 10 | 21 3/32 | (h) | 1/4 | .010 | .010 | 173.1 | 38.0 | RS | | | | | | | 17 |
| 18 | V8, 1BA | WR | Own | 17.7 | Tra | 2 | Y | 20.50 | 1/2P to 1N | 0 to 1P | 1/16 to 1/8 | 5¼ | ..... | H | Mo | Mo | Cl | 10 | 21 3/32 | (h) | 1/4 | .010 | .010 | 173.1 | 38.0 | RS | | | | | | | 18 |
| 19 | Frazer 6, 515, 516 | WR | Own | 18.2 | Tra | 2 | Y | 20.00 | 1N to 1P | 0 to 1/4P | 0 to 1/8 | 4¾ to 5¾ | Ben | H | Mo | Mo | Ce | 11 | 22 | 2 | 1/4 | .010 | ..... | 175.7 | 44.5 | RS | | | | | | | 19 |
| 20 | Henry J 4, 513 | WR | Own | 18.2 | Tra | 1 | No | 17.50 | 1N to 1P | 1/4P to 1P | 1/8 to 1/4 | 4½ | Ben | H | Mo | Mo | Ce | 9 | ..... | 2 | 1/4 | ..... | ..... | 132.0 | ..... | RS | | | | | | | 20 |
| 21 | 6, 514 | WR | Own | 18.2 | Tra | 1 | No | 17.50 | 1N to 1P | 1/4P to 1P | 1/8 to 1/4 | 4½ | Ben | H | Mo | Mo | Ce | 9 | ..... | 2 | 1/4 | ..... | ..... | 132.0 | ..... | RS | | | | | | | 21 |
| 22 | Hudson 6, 4A | WR | Gem | 18.2 | Lg | 2 | Y | 19.05 | 1/2P to 1 1/2P | 1/4P to 1 1/2P | 0 to 1/8 | 3°36' | Ben | D | Mo | Mo | Ce | 11 | 20 1/2 | 1¾ | 1/4 | .010 | .010 | 140.4 | ..... | RS | | | | | | | 22 |
| 23 | 6, 5A, 6A | WR | Gem | 20.4 | Lg | 2 | Y | 21.16 | 1/2P to 1 1/2P | 1/4P to 1 1/2P | 0 to 1/8 | 3°36' | Ben | D | Mo | Mo | Ce | 11 | (i) | (h) | 1/4 | .010 | .010 | 158.7 | ..... | RS | | | | | | | 23 |
| 24 | 6, 7A | WR | Gem | 20.4 | Lg | 2 | Y | 21.16 | 1/2P to 1 1/2P | 1/4P to 1 1/2P | 0 to 1/8 | 3°36' | Ben | D | Mo | Mo | Ce | 11 | (i) | (h) | 1/4 | .010 | .010 | 158.7 | ..... | RS | | | | | | | 24 |
| 25 | 8, 8A | WR | Gem | 20.4 | Lg | 2 | Y | 21.16 | 1/2P to 1 1/2P | 1/4P to 1 1/2P | 0 to 1/8 | 3°36' | Ben | D | Mo | Mo | Ce | 11 | (i) | (h) | 1/4 | .010 | .010 | 158.7 | ..... | RS | | | | | | | 25 |
| 26 | Kaiser 6, 511, 512 | WR | Own | 18.2 | Tra | 2 | Y | ..... | ..... | ..... | ..... | ..... | Ben | H | Mo | Mo | Ce | 11 | 22 | 2 | 1/4 | .010 | ..... | 175.7 | 44.5 | RS | | | | | | | 26 |
| 27 | Lincoln V8, 1EL, 1EH | WR | Gem | 22.3 | Tra | 2 | Y | 21.90‖ | 0 to 1 1/2N | 0 to 1/4P | 1/8 to 1/4 | 5 | Ben | H | Mo | Mo | Cl | 12 | 23 1/16 | (j) | 1/4 | .010 | .010 | 186.4 | 41.0 | RS | | | | | | | 27 |
| 28 | Mercury V8, 1CM | WR | Gem | 18.2 | Tra | 2 | Y | 21.50 | 0 to 1 1/2N | 0 to 1/4P | 1/8 to 1/4 | 5 | Ben | H | Mo | Mo | Co | 11 | 21 3/4 | (a) | 1/4 | .010 | .010 | 159.1 | 44.0 | RS | | | | | | | 28 |
| 29 | Nash 6, 5110 | WR | Gem | 20.0 | Tra | 2 | No | 18.58 | 1/4P to 1 1/4P | 1/4P to 1/4P | 1/8 to 1/4 | 8 | Ben | H | Mo | Mo | Cl | 8 | 16 3/32 | (k) | 1/4 | ..... | ..... | 92.1 | 39.8 | RS | | | | | | | 29 |
| 30 | 6, 5140 | WR | Gem | 20.0 | Tra | 2 | Y | 21.16 | 0 to 1/2P | 1/4N to 1/4P | 1/8 to 1/4 | 8½ | Ben | H | Mo | Mo | Cl | 9 | 17 1/2 | (l) | 1/4 | .015 | .015 | 132.0 | 43.4 | RS | | | | | | | 30 |
| 31 | 6, 5160 | WR | Gem | 20.0 | Tra | 2 | Y | 22.16 | 0 to 1/2P | 1/4N to 1/4P | 1/8 to 1/4 | 8½ | Ben | H | Mo | Mo | Cl | 10 | 20 | 2 | 1/4 | .015 | .015 | 160.0 | 43.7 | RS | | | | | | | 31 |
| 32 | Oldemobile V8, 88 | WR | Sag | 19.0 | Tra | 2 | No | 20.00 | 0 to 3/4N | ¼N to ¾P | 1/8 to 1/4 | 4°29'47" | Var | H | Mo | Mo | Cl | 11 | 21 1/4 | (m) | 1/4 | .015 | .015 | 191.7 | 42.0 | RS | | | | | | | 32 |
| 33 | V8, 98 | BN | Sag | 21.3 | Tra | 2 | No | 21.00 | 0 to 3/4N | ¾N to ¾P | 1/8 to 1/4 | 4°29'47" | Ben | H | Mo | Mo | Cl | 11 | 21 1/4 | (m) | 1/4 | .015 | .015 | 191.7 | 42.0 | RS | | | | | | | 33 |
| 34 | Packard 8, 200 | WR | Gem | 20.4 | ..... | ..... | ..... | 21.50 | 1 1/2N to 1/2N | 1/2N to 1/2P | 0 to 1/8 | 5°50' | ..... | H | Mo | Mo | Ce | 12 | 24 1/2 | 1¾ | 1/4 | ..... | ..... | 171.5 | ..... | RS | | | | | | | 34 |
| 35 | 8, 300, 400 | WR | Gem | 22.3 | ..... | ..... | ..... | 22.50 | 1 1/2N to 1/2N | 1/2N to 1/2P | 0 to 1/8 | 5°50' | ..... | H | Mo | Mo | Ce | 12 | 24 1/2 | (n) | 1/4 | ..... | ..... | 208.2 | ..... | RS | | | | | | | 35 |
| 36 | Plymouth 6, P-22, P-23 | WR | ..... | 18.2 | No | 2 | No | ..... | 1N to 1P | ½N to ¾P | 0 to 1/8 | 5 to 6½ | Own | H | Wo | Wo | Co | 10 | (o) | 2 | 1/4 | .008 | .008 | 158.0 | 40.0 | T | Ext | 6 | 15 1/16 | 2 | 1/4 | .018 | 36 |
| 37 | Pontiac 8, 1951-25 | WR | Sag | 19.0 | No | 2 | No | 18.79 | 1/2N to 1N | ¼N to ¼P | 0 to 1/8 | 4¾ to 5¼ | Ben | H | Mo | Mo | Co | 11 | 21 1/4 | (h) | 1/4 | ..... | ..... | 171.0 | 40.5 | RS | | | | | | | 37 |
| 38 | 8, 1951-27 | WR | Sag | 19.0 | No | 2 | No | 18.79 | 1/2N to 1N | ¼N to ¼P | 0 to 1/8 | 4¾ to 5¼ | Ben | H | Mo | Mo | Co | 11 | 21 1/4 | (h) | 1/4 | ..... | ..... | 171.0 | 40.5 | RS | | | | | | | 38 |
| 39 | Studebaker 6, 10G | CL | Ross | 15.4 | Lg | 2 | Y | 19.75 | 1N to 2 1/2N | 0 to 1P | 1/16 to 1/8 | 5¼ | Wag | H | Mo | Mo | Co | 9 | 18 1/2 | 2 | 1/4 | ..... | ..... | 148.0 | 43.0 | RS | | | | | | | 39 |
| 40 | V8, H | CL | Ross | 18.5 | Lg | 2 | Y | 19.75 | 1N to 2 1/2N | 0 to 1P | 1/16 to 1/8 | 5¼ | Wag | H | Mo | Mo | Co | (p) | (q) | 2 | 1/4 | ..... | ..... | 163.0 | 38.0 | RS | | | | | | | 40 |
| 41 | Willys 4, 473-SD | CL | Ross | 14.0 | Tra | 2 | No | 17.50 | 1P | 1P | 1/16 to 1/8 | 5 | Ben | H | Mo | Mo | Cl | 10 | 19 | 1 3/4 | 1/4 | ..... | ..... | 133.0 | 43.0 | RS | | | | | | | 41 |
| 42 | 6, 473-SW | CL | Ross | 14.0 | Tra | 2 | No | 17.50 | 1P | 1P | 1/16 to 1/8 | 5 | Ben | H | Mo | Mo | Cl | 10 | 19 | 1 3/4 | 1/4 | ..... | ..... | 133.0 | 43.0 | RS | | | | | | | 42 |

**ABBREVIATIONS**

▲—Powerglide model available at extra cost
*—At ⅜° camber
‡—At 0° camber
‖—Model 1EH 22.4 ft.
(a)—Front 2 in., rear 1¾ in.
(b)—Adjust to slight drag, back off ¼ notches
(c)—Tighten until shoes are firm against drum, back off 1 notch
(d)—Disk brake, 12 segments per wheel
(e)—Disk brake with 2 buttons of 1¼ in. diam per wheel
(f)—Front 21 in., rear 18½ in.
(g)—Front 23 in., rear 20⅝ in.
(h)—Front 2½ in., rear 1¾ in.
(i)—Front 21⅝ in., rear 20¼ in.
(j)—Front 2¼ in., rear 2 in.
(k)—Front-primary 1¾ in., secondary 1½ in.; rear-primary 1¾ in., secondary 1 in.
(l)—Primary 2 in., secondary 1⅝ in.
(m)—Front 2½ in., rear 2 in.
(n)—Primary 2¼ in., secondary 2 in.
(o)—Front 21 in., rear 18½ in.
(p)—Front 11 in., rear 9 in.
(q)—Front 22¼ in., rear 18½ in.
Ben—Bendix Products Division
B-M—Bendix-Moraine
BN—Ball nut
BW—Ball bearing, worm and nut
Ce—Centrifuse
CI—Cast Iron
CL—Cam and lever
Co—Composite
CrL—Chrysler-Lockheed
D—Duo-automatic, hydraulic and mechanical
Ext—External contracting
Gem—Gemmer Mfg. Co.
GH—Goodyear-Hawley
H—Hydraulic
Int—Internal expanding
Lg—Longitudinal
Mo—Moulded
N—Negative
No—No or None
P—Positive
RB—Recirculating ball
Ross—Ross Gear and Tool Co.
RS—Rear service brakes
SA—Self adjusting
Sag—Saginaw Steering Gear Div.
T—Transmission
Tra—Transverse
Var—Various
Wag—Wagner Electric Corp.
Wo—Woven
WR—Worm and roller
Y—Yes

***For Directory of the Manufacturers listed above, see page 190.***

# REAR AXLES, TIRES AND FRAMES

| Line Number | PASSENGER CAR MAKE AND MODEL | REAR AXLE: Make | Type | Min. Road Clearance (In.) | LUBRICATION: Capacity (Pts.) | Grade: Summer | Grade: Winter | GEARING: Type | Ratios: Standard | Ratios: Optional | No. of Teeth: Ring | No. of Teeth: Pinion | Pinion Adjustment | Pinion Bearing Adjustment | Pinion Bearing in Sleeve | Back Lash (Average In.) | TIRES: Make | Size | Number of Plies | Inflation Pressure (psi.) Cold: Front | Inflation Pressure (psi.) Cold: Rear | RIM: Diameter (In.) | RIM: Width (In.) | FRAME DIMENSIONS (In.): Depth (Maximum) | Thickness (Maximum) | Flange Width (Maximum) | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Buick 8, 40 | Own | SF | 7.76 | 4 | 90 Hyp | 90 Hyp | Hyp | 3.90 | 3.60 | 43 | 11 | Shim | None | No | .008 | US, Fire, Go | 7.60/15 | 4 | 24 | 24 | 15 | 6.00 | 5 11/16 | 3/16 | 2 | 1 |
| 2 | 8, 50 | Own | SF | 7.76 | 4 | 90 Hyp | 90 Hyp | Hyp | 3.90 | 3.60 | 43 | 11 | Shim | None | No | .008 | US, Fire, Go | 7.60/15 | 4 | 24 | 24 | 15 | 6.50 | 5 5/8 | 1/4 | 2 | 2 |
| 3 | 8, 70 | Own | SF | 8.26 | 4 | 90 Hyp | 90 Hyp | Hyp | 3.90 | 3.60 | 43 | 11 | Shim | None | No | .008 | US, Fire, Go | 8.00/15 | 4 | 24 | 24 | 15 | 6.50 | 5 7/8 | 1/4 | 2 1/2 | 3 |
| 4 | Cadillac V8, 61 | Own | SF | 8.34 | 5 | 90 Hyp | 90 Hyp | Hyp | 3.36 | | 47 | 14 | None | None | No | .006 | US, Fire, Go | 8.00/15 | 4 | 24 | 24 | 15 | 6.00 | 7 1/16 | 3/16 | 2 7/8 | 4 |
| 5 | V8, 62, 60 | Own | SF | 8.34 | 5 | 90 Hyp | 90 Hyp | Hyp | 3.36 | | 47 | 14 | None | None | No | .006 | US, Fire, Go | 8.00/15 | 4 | 24 | 24 | 15 | 6.00 | (f) | (g) | (h) | 5 |
| 6 | V8, 75 | Own | SF | 8.44 | 5 | 90 Hyp | 90 Hyp | Hyp | 4.27 | 3.77 | 47 | 11 | None | None | No | .006 | US, Fire, Go | 8.20/15 | 6 | 28 | 28 | 15 | 6.00 | 7 3/8 | 3/8 | 2 11/16 | 6 |
| 7 | Chevrolet 6, JJ, JK | Own | SF | 8.00 | 3 1/2 | 90 Hyp | 90 Hyp | Hyp | 4.11 | N | 37 | 9 | Shim | None | No | .006 | US, Fire, Go | 6.70/15 | 4 | 24 | 24 | 15 | 5.00 | 4 11/16 | 1/8 | 3 1/8 | 7 |
| 8 | 6, 2100A | Own | SF | 8.06 | 3 1/2 | 90 Hyp | 90 Hyp | Hyp | 3.55 | N | 39 | 11 | Shim | None | No | .006 | US, Fire, Go | 6.70/15 | 4 | 24 | 24 | 15 | 5.00 | 4 11/16 | 1/8 | 3 1/8 | 8 |
| 9 | Chrysler 6, C-51 | Own | SF | 8.38 | 3 1/8 | 90 Hyp | 90 Hyp | Hyp | 3.90 | | 39 | 10 | Shim | Shim | No | .008 | Gy | 7.60/15 | 4 | 24 | 24 | 15 | 5.50 | 6 | 1/4 | 3 3/16 | 9 |
| 10 | V8, C-52, C-54 | Own | SF | 8.75 | 3 1/2 | 90 Hyp | 90 Hyp | Hyp | 3.73 | | 41 | 11 | Shim | Shim | No | .008 | Gy | 8.20/15 | 4 | 24 | 24 | 15 | 6.00 | 6 1/2 | 1/4 | 4 | 10 |
| 11 | V8, C-53 | Own | SF | 8.62 | 5 | 90 Hyp | 90 Hyp | Hyp | 3.54 | | 39 | 11 | Shim | Shim | No | .008 | Gy | 8.90/15 | 6 | 24 | 24 | 15 | 6.50 | 6 7/8 | 3/8 | 4 1/2 | 11 |
| 12 | Crosley 4, CD, VC | Spi | SF | 6.50 | 1 1/2 | 90 | | SB | 5.17 | | 31 | 6 | Shim | Shim | No | .006 | Fire, Gy | 4.50/12 | 4 | 25 | 25 | 12 | 3.00 | 3 | 1/8 | 1 1/4 | 12 |
| 13 | DeSoto 6, S-15 | Own | SF | 8.50 | 3 1/4 | 90 Hyp | 90 Hyp | Hyp | 3.90 | | 39 | 10 | Shim | Shim | No | .008 | Gy | 7.60/15 | 4 | 24 | 24 | 15 | 5.50 | 6 | 3/8 | 3 1/16 | 13 |
| 14 | Dodge 6, D-41 | Own | SF | 8.00 | 3 1/4 | 90 Hyp | 90 Hyp | Hyp | 3.90 | | 39 | 10 | Shim | Shim | No | .008 | Gy | 6.70/15 | 4 | 24 | 24 | 15 | 4.50 | 6 | 3/8 | 3 1/16 | 14 |
| 15 | 6, D-42 | Own | SF | 8.25 | 3 1/4 | 90 Hyp | 90 Hyp | Hyp | 3.90 | | 39 | 10 | Shim | Shim | No | .008 | Gy | 7.10/15 | 4 | 24 | 24 | 15 | 5.00 | 6 | 3/8 | 3 1/16 | 15 |
| 16 | Ford 6, 1HA | Own | SF | 8.20 | 3 1/2 | 90 Hyp | 90 Hyp | Hyp | 3.73 | 4.10 | 41 | 11 | Shim | Ca | No | .006 | Var | 6.00/16 | 4 | 28 | 25 | 16 | 4.50 | 4 | 3/8 | 3 3/4 | 16 |
| 17 | V8, 1BA | Own | SF | 8.20 | 3 1/2 | 90 Hyp | 90 Hyp | Hyp | 3.73 | 4.10 | 41 | 11 | Shim | Ca | No | .006 | Var | 6.00/16 | 4 | 28 | 25 | 16 | 4.50 | 4 | 3/8 | 3 3/4 | 17 |
| 18 | Frazer 6, 515, 518 | Spi | SF | 7.81 | 3 | 90 Hyp | 90 Hyp | Hyp | 3.91 | 4.27 | 47 | 11 | Shim | Shim | No | .004 | Gy | 7.10/15 | 4 | 24 | 24 | 15 | 5.00 | 6 1/2 | 1/8 | | 18 |
| 19 | Henry J 4, 513 | Spi | SF | 7.75 | 3 | 90 Hyp | 80 Hyp | Hyp | 4.10 | 4.55 | 41 | 10 | Shim | Shim | | | Gy | 5.90/15 | 4 | 24 | 24 | 15 | 4.00 | 4 | 3/8 | 3 | 19 |
| 20 | 6, 514 | Spi | SF | 7.75 | 3 | 90 Hyp | 80 Hyp | Hyp | 4.10 | 4.55 | 41 | 10 | Shim | Shim | | | Gy | 5.90/15 | 4 | 24 | 24 | 15 | 4.00 | 4 | 3/8 | 3 | 20 |
| 21 | Hudson 6, 4A | Own | SF | 8.12 | 3 5/8 | | | Hyp | 4.10 | 4.55 | 41 | 10 | Shim | Shim | No | .005 | Gy | 7.10/15 | 4 | 26 | 24 | 15 | 5.00 | | | | 21 |
| 22 | 6, 5A, 6A | Own | SF | 8.12 | 3 5/8 | | | Hyp | 4.10 | 4.55 | 41 | 10 | Shim | Shim | No | .035 | Gy | 7.10/15 | 4 | 26 | 24 | 15 | 5.00 | | | | 22 |
| 23 | 6, 7A | Own | SF | 8.12 | 3 5/8 | | | Hyp | 4.10 | 4.55 | 41 | 10 | Shim | Shim | No | .035 | Gy | 7.10/15 | 4 | 26 | 24 | 15 | 5.00 | | | | 23 |
| 24 | 8, 8A | Own | SF | 8.12 | 3 5/8 | | | Hyp | 4.10 | 4.55 | 41 | 10 | Shim | Shim | No | .035 | Gy | 7.10/15 | 4 | 26 | 24 | 15 | 5.00 | | | | 24 |
| 25 | Kaiser 6, 511, 512 | Spi | SF | 7.81 | 3 | 90 Hyp | 90 Hyp | Hyp | 3.91 | 4.55 | 45 | 11 | Shim | Shim | No | .004 | Gy | 6.70/15 | 4 | 24 | 24 | 15 | 5.00 | 5 1/2 | 3/16 | 2 | 25 |
| 26 | Lincoln V8, 1EL, 1EH | Spi | SF | | 4 | | | Hyp | 3.91 | 4.27 | 43 | 11 | Shim | Shim | No | .006 | Gy | (c) | 4 | (d) | 24 | 15 | 6.00 | 5 1/2 | (e) | 2 | 26 |
| 27 | Mercury V8, 1CM | Spi | SF | | 3 | | | Hyp | 3.91 | 4.27 | 43 | 11 | Shim | Shim | No | .006 | Var | 7.10/15 | 4 | 24 | 24 | 15 | 5.50 | 5 1/2 | .105 | 2 | 27 |
| 28 | Nash 6, 5110 | Own | SF | 7.75 | 3 | 90 Hyp | 80 Hyp | Hyp | 3.78 | 4.10 | 34 | 9 | Shim | Shim | No | .005 | Gy | 5.90/15 | 4 | 24 | 24 | 15 | 4.00 | Int | | | 28 |
| 29 | 6, 5140 | Own | SF | 7.75 | 3 | 90 Hyp | 80 Hyp | Hyp | 4.38 | 4.88 | 35 | 8 | Shim | Shim | No | .005 | Gy | 6.40/15 | 4 | 24 | 24 | 15 | 4.50 | Int | | | 29 |
| 30 | 6, 5160 | Own | SF | 8.00 | 4 | 90 Hyp | 80 Hyp | Hyp | 4.10 | 4.44 | 41 | 10 | Shim | Shim | No | .005 | Gy | 7.10/15 | 4 | 24 | 24 | 15 | 5.00 | Int | | | 30 |
| 31 | Oldsmobile V8, 88 | Own | SF | 8.34 | 3 3/4 | | | Hyp | 3.64 | 3.90 | 40 | 11 | Shim | Nut | No | .006 | Var | 7.60/15 | 4 | 24 | 24 | 15 | 5.50 | 6 3/8 | .120 | 2 1/4 | 31 |
| 32 | V8, 98 | Own | SF | 8.34 | 3 3/4 | | | Hyp | 3.90 | | 39 | 10 | Shim | Nut | No | .005 | Var | 7.60/15 | 4 | 24 | 24 | 15 | 5.50 | 5 1/8 | | 2 5/8 | 32 |
| 33 | Packard 8, 200 | Own | SF | | 4 | | | Hyp | 3.90 | 4.10 | 39 | 10 | | | | .004 | | 7.60/15 | 4 | 24 | 24 | 15 | 5.50 | 5 1/2 | | 2 1/2 | 33 |
| 34 | 8, 300, 400 | Own | SF | | 4 | | | Hyp | 3.90† | 3.54 | 39 | 10 | | | | .004 | | 8.00/15 | 4 | 24 | 24 | 15 | 6.00 | 6 | | 2 3/8 | 34 |
| 35 | Plymouth 6, P-22 | Own | SF | 7.50 | 3 1/4 | 90 Hyp | 90 Hyp | Hyp | 3.73 | | 41 | 11 | Shim | Shim | No | .008 | Gy | 6.40/15 | 4 | 24 | 24 | 15 | 4.50 | 6 | 3/8 | 3 1/16 | 35 |
| 36 | 6, P-23 | Own | SF | 8.00 | 3 1/4 | 90 Hyp | 90 Hyp | Hyp | 3.90 | | 39 | 10 | Shim | Shim | No | .008 | Gy | 6.70/15 | 4 | 24 | 24 | 15 | 4.50 | 6 | 3/8 | 3 1/16 | 36 |
| 37 | Pontiac 6, 1951-25 | Own | SF | 7.69 | 3 1/4 | 90 Hyp | 90 Hyp | Hyp | 4.10 | 3.90 | 41 | 10 | Shim | Screw | No | .008 | Var | 7.10/15 | 4 | 24 | 24 | 15 | 5.50 | 6 1/8 | 1/4 | 2 5/8 | 37 |
| 38 | 8, 1951-27 | Own | SF | 7.69 | 3 1/4 | 90 Hyp | 90 Hyp | Hyp | 3.90 | 4.10 | 39 | 10 | Shim | Screw | No | .008 | Var | 7.10/15 | 4 | 24 | 24 | 15 | 5.50 | 6 1/4 | 1/4 | 2 5/8 | 38 |
| 39 | Studebaker 6, 10G | Spi | SF | 8.00 | 2 1/2 | 90 Hyp | 90 Hyp | Hyp | 4.10 | 4.56 | 41 | 10 | Shim | Shim | No | .004 | Fire, Go | 6.40/15 | 4 | 26 | 24 | 15 | 5.00 | 3 11/16 | 1/8 | 4 | 39 |
| 40 | V8, H | Spi | SF | 8.00 | 3 | 90 Hyp | 90 Hyp | Hyp | 4.09 | 4.56 | 45 | 11 | Shim | Shim | No | .004 | Fire, Go | 7.10/15 | 4 | 26 | 22 | 15 | 5.00 | 3 11/16 | 1/8 | 4 | 40 |
| 41 | Willys 4, 473-SD | Spi | SF | 8.38 | 2 | 90 Hyp | 90 Hyp | Hyp | 4.88 | 5.38 | 39 | 8 | Shim | Shim | No | .006 | Gy, Go | 6.50/15 | 4 | 24 | 28 | 15 | 4.50 | 5 | 1/4 | 3 3/4 | 41 |
| 42 | 6, 673-SW | Spi | SF | 8.50 | 2 | 90 Hyp | 90 Hyp | Hyp | 5.38 | | 43 | 8 | Shim | Shim | No | .006 | Gy, Go | 6.70/15 | 4 | 20 | 24 | 15 | 4.50 | 5 | 1/4 | 3 3/4 | 42 |

**ABBREVIATIONS**

♣—Powerglide model available at extra cost

†—Model 400, 3.54 standard

(c)—IEL 8.00/15; IEH 8.20/15

(d)—IEL 26 lb; IEH 24 lb

(e)—IEL .105 in.; IEH .120 in.

(f)—Model 62-7 3/32 in., model 60-7 1/16 in.

(g)—Model 62-3/4 in., model 60-7/8 in.

(h)—Model 62-2 13/16 in., model 60-2 11/16 in.

**Co**—Collapsible spacer

**Fire**—Firestone Tire and Rubber Co.

**Go**—B. F. Goodrich Co.

**Gy**—Goodyear Tire and Rubber Co.

**Hyp**—Hypoid

**Int**—Integral with body

**No**—No or None

**SB**—Spiral Bevel

**SF**—Semi-floating

**Spi**—Spicer Mfg. Div.

**U.S.**—United States Rubber Co.

**Var**—Various

***For Directory of the Manufacturers listed above, see page 190.***

# 1951 TRUCK SPECIFICATIONS

## Data Supplied by Manufacturers and Tabulated by

# AUTOMOTIVE INDUSTRIES

## KEY TO DEFINITIONS AND REFERENCES

### DEFINITIONS

**MAKE AND MODEL**

Only Domestic Truck Models are listed.

**OPTIONAL UNITS**

For the express purpose of best fitting the truck to the individual job most of the models listed can be provided with optional engines, transmissions, axles, etc., and these models when so equipped are considered standard stock models.

**CHASSIS LIST PRICE**

The chassis list price applies to the minimum standard wheelbase with standard tires and standard equipment. All prices are F.O.B. factory. Chassis list price does not include the price of the Cab unless otherwise noted.

**RECOMMENDED GROSS VEHICLE WEIGHT FOR NORMAL SERVICE**

The Gross Weights published herewith are those supplied by manufacturers as their Recommended Gross Vehicle Weights for Normal Operating Conditions, and are based upon the Maximum Authorized Tire Size listed. In actual practice the manufacturer may either increase or decrease the gross vehicle weight rating when either favorable or unfavorable operating conditions are involved. Since the proper performance of a motor truck depends upon many factors, including grades, road conditions, etc., the gross weights that a manufacturer is prepared to recommend will vary with particular conditions, and the manufacturer's own standard of safety factors. Specific recommendations, therefore, should be obtained from the manufacturer's representative.

**CHASSIS WEIGHT**

The chassis weight listed includes the weight of the minimum standard wheelbase chassis, with cowl, with standard tires, with standard equipment, with crankcase and cooling system full, and 5 gallons of fuel in the tank. It does not include the weight of the Cab. This applies to C.O.E. as well as conventional chassis types. Exceptions are noted.

**STANDARD TIRE SIZE**

The standard tire size listed is that which is included in the Chassis List Price.

**MAXIMUM AUTHORIZED TIRE SIZE**

The tire size listed in this column is the maximum size recommended by the manufacturer of the chassis for the Gross Vehicle Weight for Normal Operating Conditions. It is furnished at extra cost, if it differs from the standard size. Dual rears are understood; exceptions noted.

**MINIMUM STANDARD WHEELBASE**

The minimum standard wheelbase is the so-called standard wheelbase on which the Chassis List Price is based.

**MAXIMUM STANDARD WHEELBASE**

The maximum standard wheelbase is the extreme end of the standard range of wheelbases offered by the chassis maker.

**MAXIMUM BRAKE HP.**

Maximum Brake Horsepower at Given R.P.M. is actual dynamometer reading without accessories.

**GEAR RATIO RANGE**

Gear Ratio Range in High—Ratios within the range given are available at no extra cost. Exceptions are noted.

**TRACTORS**

Unless given the designation (N)—meaning not available as a tractor—all standard models may be assumed to be available as tractors. Exclusively Tractor models are designated (T).

### KEY TO REFERENCES

c.f.—Cab Forward design.
c.o.e.—Cab-Over-Engine design.
(D)—Diesel-engine equipped.
(T)—Designed for tractor use only.
(C)—Converted Ford or Chevrolet Model.

## KEY TO ABBREVIATIONS

**FOR ALL MAKES**

▲—Includes weight of cab.
●—Gross combination weight.

**REAR AXLE**

**Final Drive and Type**

**B**—Bevel.
**CD**—Chain Drive.
**F**—Full-floating.
**H or Hy**—Hypoid.
**d**—Dual range axle.
**2**—Double Reduction.
**S**—Spiral bevel.
**W**—Worm.
**¾**—Three Quarters Floating.
**½**—Semi-Floating.
**T**—Torque Tube.

**GEAR RATIOS**

(●●) Only one ratio.

**Drive and Torque**

**H**—Hotchkiss (springs).
**R**—Radius Rods.

**Drive and Torque—continued**

**L**—Parallel Torque Rods.
**T**—Torque Arm.

**AUTOCAR**

†—Rear tires only.
♦—Equipped with two speed torque divider having ratios of 1.22 and 1.68.
††—12.00/24 front; 14.00/24 rear.

**CHEVROLET**

♦—8.25/20 front tires are required when 9.00/20 dual rears are used.
‡—7.50/20 can be used on front with no decrease in G.V.W. when 8.25/20 are used on dual rear wheels.
§—4-speed transmission available.
††—Also available in 5.14 ratio.
□—5.43 axle available on Models UJ-UK-UL and 2-speed axle available on UVS-UWS-UYS-UP-UPS-UR-URS-US-USS-UV-UW-UY-UX.
†—Forward control chassis for Door-to-Door delivery bodies. These chassis do not have cowl.

**CORBITT**

■—Available with optional tires and axles for less G.V.W. ratings.

**DODGE**

▲—Front only; rear 7.00/168.
●—Front only; rear 8.25/16.
‡—Front only; rear 6.50/208
¶—Front only; rear 7.50/20.
♦—Front only; rear 9.00/20.
†—Front only; rear 10.00/20.

**FEDERAL**

‡—Radius rods obtainable.

**MARMON HERRINGTON**

♦—8200 for 8.25/18 tires.

**OSHKOSH**

■—1091 cu. in.
□—Chassis weights on duals front, center and rear.

**STERLING**

†—Rear only; front 11.00/24.
‡—Rear only; front 12.00/24.
♦—When 11.00/22 tires are required it is necessary to furnish 52" axle spacing.

**TRUCKSTELL**

♦—2-speed locked in low axle ratio.
●—Single front, dual rear.

**WARD LA FRANCE**

‡—Available with optional rear axles.
‡‡—Available with 11.00/22 or 12.00/20 tires for G.V.W. of 60,000 lb. and optional front and rear axles.

**WHITE**

♦—2-speed optional.
†—Other types optional.

**WILLYS**

●—Complete vehicle with pickup type body.
‡—3-speed transmission, 2-speed transfer case.

# 1951 TRUCK SPECIFICATIONS

| MAKE AND MODEL | WHEELBASE Minimum Standard | WHEELBASE Maximum Standard | Gross Vehicle Weight for Normal Service | Chassis Weight (See definition) | TIRE SIZES (D-dual rear, S-single rear) Standard Front and Rear | TIRE SIZES Maximum Authorized Tire Size (Duals unless noted) | ENGINE DETAILS No. of Cylinders Bore and Stroke | ENGINE DETAILS Displacement | ENGINE DETAILS Torque lb. ft. | ENGINE DETAILS Maximum Brake H.P. at R.P.M. Given | No. of Forward Speeds | REAR AXLE Gear and Type | REAR AXLE Drive and Torque | REAR AXLE Gear Ratio Range in High |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autocar** | | | | | | | | | | | | | | |
| (T) C50D | 148 | 164 | 26000 | *9800 | 10.00/20 | 11.00/20 | 6-4x5 | 377 | 292 | 119 | 5 | 2F | H | 6.40 10.05 |
| (T) C50T | 148 | 164 | 26000 | *9250 | 10.00/20 | 10.00/22 | 6-4x5 | 377 | 292 | 119 | 5 | 2F | H | 6.40-9.10 |
| U50 | 106 | 142 | 26000 | *8950 | 9.00/20 | 10.00/22 | 6-4x5 | 377 | 292 | 119 | 5 | 2F | H | 6.40-9.10 |
| U50T | 96 | 106 | 26000 | *8550 | 9.00/20 | 10.00/22 | 6-4x5 | 377 | 292 | 119 | 5 | 2F | H | 6.40-9.10 |
| C70 | 164 | 200 | 30000 | *10200 | 10.00/20 | 11.00/22 | 6-4 1/4x5 1/4 | 447 | 353 | 145 | 5 | 2F | H | 6.13-9.30 |
| C70D | 148 | 164 | 28000 | *10800 | 11.00/20 | 11.00/22 | 6-4 1/4x5 1/4 | 447 | 352 | 145 | 5 | 2F | H | 6.13-9.30 |
| C70S | 164 | 200 | 32000 | *10300 | 10.00/20 | 11.00/22 | 6-4 1/4x5 1/4 | 501 | 402 | 165 | 5 | 2F | H | 6.13-9.30 |
| (T) C70T | 148 | 164 | 30000 | *10000 | 10.00/20 | 11.00/22 | 6-4 1/4x5 1/4 | 447 | 353 | 145-2700 | 5 | 2F | H | 5.84-9.10 |
| (T) C70TS | 148 | 164 | 32000 | *10550 | 10.00/20 | 11.00/22 | 6-4 1/4x5 1/4 | 501 | 400 | 165-2700 | 5 | 2F | H | 5.84-9.30 |
| U70 | 128 | 163 | 30000 | *10300 | 10.00/20 | 11.00/22 | 6-4 1/4x5 1/4 | 447 | 352 | 145 | 5 | 2F | H | 6.40-9.10 |
| U70S | 128 | 163 | 32000 | *10850 | 10.00/20 | 11.00/22 | 6-4 1/4x5 1/4 | 501 | 402 | 165 | 5 | 2F | H | 6.13-9.30 |
| (T) U70T | 109 | 109 | 30000 | *10525 | 10.00/20 | 11.00/22 | 6-4 1/4x5 1/4 | 447 | 352 | 145 | 5 | 2F | H | 6.40-9.10 |
| (T) U70TS | 112 | 112 | 32000 | *10825** | 11.00/20 | 11.00/22 | 6-4 1/4x5 1/4 | 501 | 402 | 165 | 5 | 2F | H | 6.13-9.30 |
| (T) C75T | 140 | 162 | 35000 | *11600 | 10.00/20 | 11.00/22 | 6-4 3/4x5 5/8 | 572 | 432 | 189-2800 | 5 | 2F | H | 6.13-9.30 |
| (T) (D) DC75T | 142 | 157 | 36000 | *12400 | 10.00/20D | 11.00/22 | 6-4 1/4x6 | 672 | 495 | 150-1800 | 5 | 2F | H | 6.13-9.30 |
| C90 | 182 | 200 | 36000 | *11900 | 11.00/20 | 12.00/24 | 6-4 1/4x5 1/4 | 501 | 402 | 165 | 5 | 2F | H | 6.01-10.4 |
| C90D | 171 | 171 | 44000 | *13500 | 11.00/24 | 14.00/24† | 6-4 1/4x5 1/4 | 501 | 402 | 165 | 5 | 2F | H | 7.89-11.4 |
| (T) C90T | 148 | 164 | 36000 | *11400 | 11.00/20 | 12.00/24 | 6-4 1/4x5 1/4 | 501 | 400 | 165-2700 | 5 | 2F | H | 5.34-10.4 |
| U90 | 128 | 163 | 36000 | *11450 | 11.00/20 | 12.00/24 | 6-4 1/4x5 1/4 | 501 | 402 | 165 | 5 | 2F | H | 6.01-10.4 |
| (T) U90T | 109 | 109 | 36000 | *11300 | 11.00/20 | 12.00/24 | 6-4 1/4x5 1/4 | 501 | 402 | 165 | 5 | 2F | H | 6.01-10.4 |
| (T) C95T | 140 | 140 | 40000 | *12000 | 11.00/20 | 12.00/24 | 6-4 3/4x5 5/8 | 802 | 464 | 200-2600 | 5 | 2F | H | 6.01-10.4 |
| (D) DC100 | 219 | 219 | 36000 | *14300 | 10.00/20 | 12.00/24 | 6-4 1/4x6 | 672 | 495 | 150-1800 | 4 | 2F | H | 6.01-10.4 |
| (T) (D) DC 00T | 144 | 159 | 36000 | *13650 | 10.00/20 | 12.00/24 | 6-4 3/4x5 5/8 | 743 | 537 | 165-1800 | 5 | 2F | H | 5.84-10.4 |
| (D) DC100D | 164 | 164 | 54000 | *16500 | 12.00/24 | 14.00/24† | 6-4 1/4x6 | 672 | 495 | 150-1800 | 4 | 2F | H | 7.89-11.4 |
| C100T | 163 | 178 | 36000 | *13900 | 10.00/20 | 11.00/24 | 6-5 1/2x6 | 935 | 800 | 268-2000 | 4 | 2F | H | 6.01-10.4 |
| (D) DCB 00T | 165 | 180 | 36000 | *14000 | 10.00/20 | 11.00/24 | 6-5 1/2x6 | 844 | 600 | 180-1800 | 4 | 2F | H | 6.01-10.4 |
| **Available (c.o.e.)** 200 | | | 15000 | *6500 | 7.00/20D | 8.25/20 | 6-3 15/16x4 1/2 | 263 | 176 | 178-2600 | 4 | HF | H | ** -6.20 |
| (c.o.e.) 225 | | | 16500 | *8200 | 7.50/20D | 8.25/20 | 6-4x4 1/2 | 320 | 235 | 105-3200 | 4 | HF | H | ** -6.20 |
| (c.o.e.) 250 | | | 20000 | *6400 | 8.25/20D | 9.00/20 | 6-4x4 1/2 | 320 | 236 | 105-3200 | 5 | HF | R | ** -6.80 |
| (c.o.e.) 400 | | | 22000 | *6800 | 9.00/20D | 10.00/20 | 6-4x4 1/2 | 320 | 235 | 105-3200 | 5 | HF | R | ** -6.83 |
| (c.o.e.) 500 | | | 23000 | *7500 | 9.00/20D | 10.00/20 | 6-4 1/4x4 5/8 | 404 | 285 | 130-3000 | 5 | HF | R | ** -6.83 |
| (c.o.e.) 550 | | | 28000 | *8100 | 10.00/20D | 11.00/24 | 6-4 1/4x4 5/8 | 404 | 285 | 130-3000 | 5 | HF | R | ** -7.80 |
| (c.o.e.) 550X | | | 32000 | *9600 | 10.00/20D | 11.00/24 | 6-4 1/4x4 5/8 | 404 | 285 | 130-3000 | 5 | 2F | R | ** -7.84 |
| (c.o.e.) 600 | | | 28000 | *10000 | 10.00/20D | 11.00/24 | 6-4 3/4x5 1/2 | 525 | 425 | 172-2600 | 6 | HF | R | ** -7.40 |
| c.o.e.) 601 | | | 28000 | *10900 | 10.00/20D | 11.00/24 | 6-5 1/2x6 | 779 | 595 | 240-2400 | 4 | HF | R | ** -7.40 |
| (D) (c.o.e.) 602 | | | 28000 | *11200 | 10.00/20D | 11.00/24 | 6-4 1/2x6 | 672 | 500 | 150-1800 | 4 | HF | R | ** -7.40 |
| **Biederman** NSH | 130 | 190 | 21000 | 6070 | 8.25/20D | 10.00/20 | 6-4x4 1/2 | 339 | 272 | 131-3200 | 5 | SF | H | ** -7.2 |
| NSD | 130 | 190 | 21000 | 6070 | 8.25/20D | 10.00/20 | 6-4x4 1/2 | 339 | 272 | 131-3200 | 5 | 2D | H | 6.13-8.15 |
| NSR | 142 | 171 | 21000 | 7420 | 8.25/20D | 10.00/20 | 6-4x4 1/2 | 339 | 272 | 131-3200 | 5 | HFd | H | ** -6.4 |
| HL | 93 | 197 | 30000 | 12200 | 10.00/24D | 12.00/24 | 6-5 1/2x5 1/2 | 525 | 425 | 172-2600 | 5 | HFd | H | 6.41-8.37 |
| **Brockway** 88WH | 156 | 188 | 17000 | 6000 | 8.25/20 | 8.25/20 | 6-3 3/4x4 5/8 | 290 | 212 | 100-2900 | 4 | HyF | H | ** -6.80 |
| 126W | 138 | 194 | 21000 | 6500 | 9.00/20 | 9.00/20 | 6-4x4 1/2 | 330 | 244 | 111-2800 | 5 | HyF | R | ** -7.20 |
| 146W | 138 | 212 | 25000 | 7500 | 9.00/20 | 10.00/20 | 6-4x4 1/2 | 330 | 244 | 111-2800 | 5 | HyF | R | ** -7.80 |
| 148W | 138 | 212 | 27000 | 7850 | 9.00/20 | 10.00/22 | 6-4 1/4x4 1/2 | 427 | 328 | 132-2800 | 5 | HyF | R | ** -7.80 |
| 152W | 141 | 221 | 32000 | 9000 | 10.00/20 | 11.00/20 | 6-4 1/4x4 1/2 | 427 | 328 | 132-2800 | 6 | Fd | R | 6.71-9.14 |
| 260XWL | 141 | 221 | 38000 | 11300 | 11.00/22 | 12.00/24 | 6-4 3/4x5 1/2 | 572 | 442 | 203-2800 | 5 | 2F | R | ** -7.78 |
| (T) 154W | 142 | 161 | *45000 | 8500 | 10.00/20 | 10.00/22 | 6-4 1/4x4 1/2 | 427 | 328 | 132-2800 | 5 | Fd | R | 6.71-9.14 |
| (T) 154WH | 153 | 172 | *50000 | 9500 | 10.00/22 | 11.00/20 | 6-4 1/4x5 5/8 | 513 | 400 | 189-2800 | 5 | Fd | R | 6.14-8.36 |
| (T) 260XW | 141 | 161 | *60000 | 10300 | 11.00/22 | 12.00/24 | 6-4 3/4x5 5/8 | 572 | 442 | 203-2800 | 5 | 2F | R | ** -7.21 |
| **Brown** R6572T | 144 | 166 | 33000 | | 11.00/22 | 12.00/24 | 6-4 3/4x5 1/2 | 572 | 440 | 172-2600 | 8 | Hy | H | ** -5.28 |
| 140GKT | 144 | 166 | 33000 | | 11.00/22 | 12.00/24 | 6-4 1/4x5 1/2 | 625 | 425 | 168-2400 | 8 | Hy | H | ** -5.28 |
| (D) HB600T | 144 | 166 | 33000 | | 11.00/22 | 12.00/24 | 6-4 1/2x6 | 672 | 500 | 150-1800 | 8 | Hy | H | ** -5.28 |
| (D) HRB600T | 144 | 166 | 33000 | | 11.00/22 | 12.00/24 | 6-5 1/2x6 | 743 | 530 | 165-1800 | 8 | Hy | H | ** -5.28 |
| (D) NHB600T | 144 | 166 | 33000 | | 11.00/22 | 12.00/24 | 6-5 1/2x6 | 743 | 575 | 200-2100 | 5 | 2F | H | ** -6.42 |
| (D) HRBB600T | 144 | 166 | 33000 | | 11.00/22 | 12.00/24 | 6-5 1/2x6 | 743 | 500 | 175-2000 | 5 | Hy | H | ** -5.28 |
| (D) 6DA844T | 144 | 166 | 33000 | | 11.00/22 | 12.00/24 | 6-5 1/2x6 1/2 | 844 | 640 | 210-2100 | 4 | | H | |
| **Chevrolet** JP | 116 | | 4800 | *2550 | 6.00/16S | 16S | 6-3 1/2x3 5/8 | 216 | 178 | 92-3400 | 53 | Hy | T | ** -4.11 |
| JR | 125 | | 5800 | *2820 | 15S | 7.50/17S | 6-3 1/2x3 5/8 | 216 | 178 | 92-3400 | 53 | HyF | H | †† -4.57 |
| (Fwd. Control JT | 125 | | 7000 | *2675 | 15S | 7.50/17S | 6-3 1/2x3 1/2 | 235 | 182 | 92-3400 | 53 | HyF | H | ** -5.14 |
| JS | 137 | | 8800 | *3155 | 7.00/17S | 7.00/18 | 6-3 1/2x3 5/8 | 216 | 176 | 92-3400 | 4 | HyF | H | ** -5.14 |
| (Fwd. Control JU | 137 | | 10000 | *2915 | 7.00/17S | 7.00/18 | 6-3 1/2x3 1/2 | 235 | 182 | 92-3400 | 4 | HyF | H | ** -5.14 |

| MAKE AND MODEL | WHEELBASE Minimum Standard | WHEELBASE Maximum Standard | Gross Vehicle Weight for Normal Service | Chassis Weight (See definition) | TIRE SIZES (D-dual rear, S-single rear) Standard Front and Rear | TIRE SIZES Maximum Authorized Tire Size (Duals unless noted) | ENGINE DETAILS No. of Cylinders Bore and Stroke | ENGINE DETAILS Displacement | ENGINE DETAILS Torque lb. ft. | ENGINE DETAILS Maximum Brake H.P. at R.P.M. Given | No. of Forward Speeds | REAR AXLE Gear and Type | REAR AXLE Drive and Torque | REAR AXLE Gear Ratio Range in High |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dodge Cont'd** | | | | | | | | | | | | | | |
| B-3-KM | 107 | 161 | 18250 | | 8.25/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 200 | 109-3600 | 5 | HyF | H | 6.8-7.2 |
| B-3 KMA | 107 | 161 | 18250 | | 8.25/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 200 | 109-3600 | 5 | SF.I | H | 6.14-9.04 |
| B-3-R | 130 | 229 | 19000 | | 7.50/20 | 9.00/20 | 6-3 3/4x4 5/8 | 306 | 253 | 137-3000 | 5 | HyF | H | 6.8-7.2 |
| B-3-RA | 130 | 229 | 19000 | | 7.50/20 | 9.00/20 | 6-3 3/4x4 5/8 | 306 | 253 | 137-3000 | 5 | SFd | H | 6.16-8.19 |
| B-3-T | 130 | 190 | 22000 | | 7.50/20 | 10.00/20 | 6-3 3/4x5 | 331 | 280 | 145-3000 | 5 | HyF | H | 6.8-7.2 |
| B-3-TA | 130 | 190 | 22000 | | 7.50/20 | 10.00/20 | 6-3 3/4x5 | 331 | 280 | 145-3000 | 5 | SFd | H | 6.36-8.19 |
| B-3-V | 130 | 190 | 24000 | | 9.00/20† | 11.00/20 | 6-3 3/4x5 | 331 | 280 | 145-3000 | 5 | HyF | H | 6.8-7.8 |
| B-3-VA | 130 | 190 | 24000 | | 9.00/20† | 11.00/20 | 6-3 3/4x5 | 331 | 280 | 145-3000 | 5 | SF.I | H | 6.42-9.06 |
| B3YL, Y | 130 | 190 | 26000 | | 9.00/20† | 11.00/20 | 6-4x5 | 377 | 330 | 154-3000 | 5 | HyF | H | 6.8-7.4 |
| B3YAL, YA | 130 | 190 | 29000 | | 9.00/20† | 11.00/20 | 6-4x5 | 377 | 330 | 154-3000 | 5 | SFd | H | 6.42-8.38 |
| **School Buses** | | | | | | | | | | | | | | |
| B-3-FS | 152 | 170 | 13000 | | 6.50/20 | 7.50/20 | 6-3 1/2x4 1/4 | 236 | 192 | 109-3600 | 4 | HyF | H | 5.62-6.8 |
| B3-GS | 192 | 192 | 14650 | | 7.50/20 | 8.25/20-10 | 6-3 1/2x4 1/4 | 236 | 192 | 109-3600 | 4 | HyF | H | 5.62-6.8 |
| B3-HHS | 192 | 192 | 15500 | | 8.25/20 | 8.25/20 | 6-3 1/2x4 1/4 | 235 | 193 | 109-3600 | 4 | HyF | H | 5.62-6.8 |
| B-3 JS | 212 | 212 | 17000 | | 7.50/20 | 8.25/20 | 6-3 3/4x4 1/2 | 250 | 205 | 114-3600 | 5 | HyF | H | 6.28-7.16 |
| B-3-RS | 229 | 229 | 19000 | | 8.25/20 | 9.00/20 | 6-3 3/4x4 5/8 | 306 | 243 | 122-3200 | 5 | HyF | H | 6.8-7.2 |
| **Duplex** T | 136 | 220 | 20000 | 6600 | 8.25/20D | 9.00/20 | 6-4x4 1/2 | 320 | 240 | 113-3000 | 5 | B | H | ** -7.20 |
| TH-404 | 136 | 220 | 20000 | 6900 | 8.25/20D | 9.00/20 | 6-4 1/4x4 1/2 | 404 | 312 | 139-2800 | 5 | DF | H | 6.13-9.15 |
| R | 136 | 220 | 28000 | 8820 | 9.00/20D | 10.00/20 | 6-4 1/4x4 1/2 | 404 | 312 | 139-2800 | 5 | DF | R | 6.53-8.53 |
| SH-501 | 172 | 208 | 30000 | 9500 | 10.00/20 | 11.00/20 | 6-4 1/2x5 1/4 | 501 | 360 | 137-2400 | 5 | 2F | R | ** -7.77 |
| JHA | 148 | 220 | 32000 | 9800 | 10.00/20D | 11.00/20 | 6-4 1/2x5 1/4 | 501 | 360 | 137-2400 | 5 | 2F | R | ** -9.83 |
| JH-558 | 148 | 220 | 32000 | 9800 | 10.00/20D | 11.00/20 | 6-4 3/4x5 1/4 | 558 | 430 | 154-2400 | 5 | DF | R | 6.41-8.37 |
| KH | 148 | 220 | 34000 | 10500 | 11.00/20D | 11.00/20 | 6-4 3/4x5 1/4 | 529 | 395 | 132-2300 | 5 | 2F | R | ** -9.83 |
| LH | 148 | 220 | 37000 | 11300 | 11.00/20D | 11.00/20 | 6-4 3/4x5 1/4 | 558 | 430 | 154-2400 | 5 | 2F | R | ** -9.83 |
| **Federal** 1501T | 136 | 196 | 12000 | *4680 | 6.50/20S | 7.50/20S | 6-3 1/2x4 1/4 | 236 | 190 | 90-3200 | 4 | BF | H | ** -5.66 |
| 1601T | 133 | 250 | 16000 | *5370 | 7.00/20D | 7.50/20 | 6-3 1/2x4 1/4 | 236 | 190 | 90-3203 | 4 | BF | H | ** -5.66 |
| 1602T | 136 | 250 | 16000 | *5545 | 7.00/20D | 8.25/20 | 6-3 1/2x4 1/4 | 236 | 190 | 90-3200 | 4 | dF | H | 6.13-8.10 |
| 1801T | 136 | 250 | 17500 | *5780 | 8.25/20D | 8.25/20 | 6-3 5/8x4 1/4 | 263 | 192 | 98-3200 | 4 | SF | H | ** -6.20 |
| 1802T | 136 | 250 | 17500 | *6080 | 8.25/20D | 8.25/20 | 6-3 5/8x4 1/4 | 263 | 192 | 98-3200 | 4 | dF | H | 6.13-8.10 |
| 2801T | 136 | 250 | 19000 | *6025 | 8.25/20D | 9.00/20 | 6-3 5/8x4 1/4 | 282 | 212 | 103-3230 | 4 | SF | R | ** -6.80 |
| 2802T | 136 | 250 | 19000 | *6105 | 8.25/20D | 9.00/20 | 6-3 5/8x4 1/4 | 282 | 212 | 103-3200 | 4 | dF | R | 6.13-8.15 |
| 2901T | 136 | 250 | 2 500 | *6535 | 9.00/20D | 10.00/20 | 6-4x4 1/2 | 320 | 250 | 115-3'00 | 5 | SF | R | ** -6.83 |
| 2902T | 136 | 250 | 21500 | *6895 | 9.00/20D | 10.00/20 | 6-4x4 1/2 | 320 | 250 | 115-3100 | 5 | dF | R | 6.32-8.22 |
| 2904T | 136 | 250 | 23500 | *7260 | 9.00/20D | 10.00/20 | 6-4x4 1/2 | 320 | 250 | 115-3100 | 15 | SF | R | ** -6.83 |
| 3001T | 136 | 250 | 22000 | *6575 | 9.00/20D | 10.00/20 | 6-4x4 1/2 | 339 | 272 | 131-3200 | 5 | SF | R | ** -6.83 |
| 3002T | 136 | 250 | 22000 | *6735 | 9.00/20D | 10.00/20 | 6-4x4 1/2 | 339 | 272 | 131-3200 | 5 | dF | R | 6.32-8.22 |
| 3004T | 136 | 250 | 23000 | *7300 | 9.00/20D | 10.00/20 | 6-4x4 1/2 | 339 | 272 | 131-3200 | 15 | SF | R | ** -6.83 |
| 3401T | 136 | 250 | 23000 | *7210 | 9.00/20D | 10.00/20 | 6-4 1/4x4 5/8 | 371 | 297 | 144-3000 | 5 | SF | R | ** -6.83 |
| 3402T | 136 | 250 | 23000 | *7370 | 9.00/20D | 10.00/20 | 6-4 1/4x4 5/8 | 371 | 297 | 144-3000 | 5 | dF | R | 6.32-8.22 |
| 45M-45MA | 143 | 203 | 27000 | 8005 | 10.00/20D | 10.00/24 | 6-4 1/4x4 1/2 | 427 | 342 | 166-3000 | 5 | SF | R | ** -6.83 |
| 45M2 | 143 | 203 | 27000 | 8380 | 10.00/20D | 10.00/24 | 6-4 1/4x4 1/2 | 427 | 342 | 166-3000 | 5 | dF | R | 6.83-8.53 |
| 55M2-55M | 143 | 203 | 30000 | 8835 | 11.00/22D | 11.00/24 | 6-4 1/4x4 1/2 | 427 | 342 | 166-3000 | 5 | HyF | R | 6.83-8.53 |
| 55MA | 155 | 203 | 30000 | 8765 | 11.00/22D | 11.00/24 | 6-4 1/4x4 1/2 | 427 | 347 | 166-3000 | 15 | 2F | R | ** -7.06 |
| 60MA | 155 | 203 | 32000 | 9600 | 11.00/22D | 11.00/24 | 6-4 1/2x5 1/4 | 501 | 395 | 148-2400 | 15 | 2F | R | ** -7.06 |
| 60M2-60M | 143 | 203 | 32000 | 9370 | 11.00/22D | 11.00/24 | 6-4 1/2x5 1/4 | 501 | 385 | 148-2400 | 5 | HyF | R | 6.83-8.53 |
| 65M2-65M | 141 | 201 | 33000 | 9995 | 11.00/22D | 11.00/24 | 6-4 1/2x5 1/2 | 602 | 466 | 205-3000 | 5 | HyF | R | 6.53-8.53 |
| 65MA | 153 | 201 | 33000 | 10225 | 11.00/22D | 11.00/24 | 6-4 1/2x5 1/2 | 602 | 456 | 205-3000 | 15 | HyF | R | ** -8.07 |
| 3404T | 136 | 250 | 25000 | 7935 | 9.00/20D | 10.00/20 | 6-4 1/4x4 5/8 | 371 | 297 | 144-3000 | 15 | SF | R | ** -6.83 |
| **Ford** | | | | | | | | | | | | | | |
| F-1 Cowl 1HC-84 | 114 | 114 | 4700 | 2226 | 6.00/16.4 | 6.50/16-6S | 6-3.3x4.4 | 226 | 180 | 95-3300 | 3 | H | H | 3.92-4.27 |
| Cowl 1RC-84 | 114 | 114 | 4700 | 2266 | 6.00/16-4 | 6.50/16-6S | 6-3 7/8x3 5/8 | 239 | 180 | 100-3800 | 3 | H | H | 3.92-4.27 |
| F-2 | | | | | | | | | | | | | | |
| Cowl 1HD-84 | 122 | 122 | 5700 | 2616 | 6.50/16-6 | 7.50/16-6S | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | ** -4.86 |
| Cowl 1RD-84 | 122 | 122 | 5700 | 2656 | 6.50/16-6 | 7.50/16-6S | 6-3 7/8x3 5/8 | 239 | 180 | 100-3800 | 4 | SF | H | ** -4.83 |
| F-3 | | | | | | | | | | | | | | |
| Cowl 1HY-84 | 122 | 122 | 6800 | 2849 | 7.00/17-6S | 7.50/17-8S | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | ** -4.86 |
| Cowl 1RY-84 | 122 | 122 | 6800 | 2889 | 7.00/17-6S | 7.50/17-8S | 6-3 7/8x3 5/8 | 239 | 180 | 100-3800 | 4 | SF | H | ** -4.83 |
| F-3 Parcel Divy. | | | | | | | | | | | | | | |
| w/o 1HJ | 104 | 104 | 7800 | 3030 | 7.00/16-6S | 7.50/17-8S | 6-3.3x4.4 | 226 | 180 | 95-3300 | 3 | SF | H | ** -4.86 |
| w/o 1HJ | 122 | 122 | 7800 | 3100 | 7.00/16-6S | 7.50/17-8S | 6-3.3x4.4 | 226 | 180 | 95-3300 | 3 | SF | H | ** -4.86 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UJ | 137 | | 14000 | 3815 | 6.50/20D | 7.50/20 | 6-3 1/2x3 3/4 | 216 | 176 | 92 | 3400 | 4 | HyF | H | | -6.17 |
| | UK | 161 | | 14000 | 3930 | 6.50/20D | 7.50/20 | 6-3 1/2x3 3/4 | 216 | 176 | 92 | 3400 | 4 | HyF | H | | -6.17 |
| (School Bus) | UL | 161 | | 12000 | 4170 | 6.50/20D | 7.00/20 | 6-3 1/2x3 3/4 | 216 | 176 | 92 | 3400 | 4 | HyF | H | | -6.17 |
| | UVS | 137 | | 15000 | 4250 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 193 | 105 | 3600 | 4 | HyF | H | | -6.17 |
| | UWS | 161 | | 15000 | 4330 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 193 | 105 | 3600 | 4 | HyF | H | | -6.17 |
| | UYS | 179 | | 15000 | 4460 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 193 | 105 | 3600 | 4 | HyF | H | | -6.17 |
| (c.o.e.) | UPS | 110 | | 15000 | *4735 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 190 | 100 | 3500 | 4 | HyF | H | | -6.17 |
| (c.o.e.) | URS | 134 | | 15000 | *4830 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 190 | 100 | 3500 | 4 | HyF | H | | -6.17 |
| (c.o.e.) | USS | 158 | | 15000 | *4925 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 190 | 100 | 3500 | 4 | HyF | H | | -6.17 |
| (c.o.e.) | UP | 110 | | 16000 | *4735 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 190 | 100 | 3500 | 4 | HyF | H | | -6.17 |
| (c.o.e.) | UR | 134 | | 16000 | *4830 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 190 | 100 | 3500 | 4 | HyF | H | | -6.17 |
| (c.o.e.) | US | 158 | | 16000 | *4925 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 193 | 105 | 3600 | 4 | HyF | H | | -6.17 |
| | UV | 137 | | 16000 | 4260 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 193 | 105 | 3600 | 4 | HyF | H | | -6.17 |
| | UW | 161 | | 16000 | 4330 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 193 | 105 | 3600 | 4 | HyF | H | | -6.17 |
| | UY | 179 | | 16000 | 4460 | 7.50/20D | 9.00/20‡ | 6-3 1/2x3 3/4 | 235 | 193 | 105 | 3600 | 4 | HyF | H | | -6.17 |
| (School Bus) | UX | 199 | | 18000 | 4705 | 7.50/20D | 8.25/20 | 6-3 1/2x3 3/4 | 235 | 193 | 105 | 3600 | 4 | HyF | H | | -6.17 |
| Corbitt | G101B* | 137 | | 22000 | | 9.00/20 | 10.00/20 | 6-4x4 1/2 | 330 | 248 | 104 | 2800 | 5 | HF | H | 4.11-7.40 |
| | G301B* | 158 | | 26000 | | 10.00/22 | 11.00/22 | 6-4 1/2x4 1/2 | 371 | 280 | 100 | 2800 | 5 | 2F | H | 7.77-8.53 |
| | G302B* | 145 | | 28000 | | 10.00/22 | 11.00/24 | 6-4 1/2x4 1/2 | 427 | 325 | 127 | 2800 | 5 | 2F | H | 6.41-8.37 |
| | G402B30 | 145 | | 30000 | | 10.00/22 | 11.00/24 | 6-4 1/2x4 1/2 | 427 | 336 | 151 | 2800 | 5 | 2F | H | 5.91-9.76 |
| | G601B32 | 155 | | 32000 | | 10.00/20 | 11.00/24 | 6-4 1/2x5 1/2 | 513 | 400 | 170 | 2800 | 5 | 2F | H | 5.91-9.76 |
| | G603B34 | 155 | | 34000 | | 10.00/20 | 12.00/24 | 6-4 1/2x5 1/2 | 602 | 464 | 200 | 2800 | 5 | 2F | H | 5.91-9.76 |
| (T) | G101T20 | 137 | | 20000 | | 8.25/20 | 9.00/20 | 6-4x4 1/2 | 330 | 248 | 104 | 2800 | 5 | HF | H | ** -5.29 |
| (T) | G302T22 | 137 | | 22000 | | 9.00/20 | 10.00/22 | 6-4 1/2x4 1/2 | 427 | 325 | 127 | 2800 | 5 | HF | H | ** -5.29 |
| (T) | G402T22 | 145 | | 25000 | | 10.00/20 | 10.00/22 | 6-4 1/2x4 1/2 | 427 | 336 | 151 | 2800 | 5 | HF | H | 5.29-6.83 |
| (T) | G602T27 | 147 | | 28000 | | 10.00/22 | 11.00/24 | 6-4 1/2x5 1/2 | 572 | 440 | 189 | 2800 | 5 | HF | H | 6.17-7.40 |
| (T) (D) | D202T20 | 137 | | 20000 | | 8.25/20 | 9.00/20 | 6-3 3/4x4 1/2 | 298 | 233 | 99 | 2800 | 5 | 2dF | H | 6.13-8.15 |
| (T) (D) | D401T23 | 148 | | 23000 | | 10.00/20 | 10.00/22 | 6-4 1/2x4 1/2 | 404 | 404 | 135 | 2800 | 5 | 2dF | H | 6.32-8.22 |
| (T) (D) | D402T25 | 145 | | 25000 | | 10.00/20 | 10.00/22 | 6-4 1/2x5 | 426 | 336 | 142 | 2800 | 5 | 2dF | H | 6.53-8.53 |
| (T) (D) | D601T27 | 150 | | 27000 | | 10.00/22 | 11.00/24 | 6-4 1/2x5 1/2 | 529 | 400 | 147 | 2200 | 5 | 2dF | H | 6.41-8.37 |
| (T) (D) | D800 Ser. | 160 | | 30000 | | 10.00/22 | 11.00/24 | 6-4 1/2x6 | 672 | 500 | 150 | 1800 | 5 | HF | H | 5.29-6.83 |
| (T) (D) | D803T32 | 160 | | 32000 | | 10.00/22 | 11.00/24 | 6-4 1/2x6 | 743 | 575 | 200 | 2100 | 5 | 2F | H | 5.91-7.21 |
| Crosley | B | 90 | | 2130 | **1330 | 4.50/12 | | 4-2 1/2x2 1/2 | 44 | 33 | 26 | 5400 | 3 | 2F | | ** -8.17 |
| Diamond T | 322 | 130 | | 14500 | 4800 | 6.00/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 190 | 91 | 3200 | 4 | SF | H | 5.57-6.83 |
| | 420 | 130 | | 16300 | 5800 | 6.00/20 | 8.25/20 | 6-3 1/2x4 1/2 | 263 | 201 | 84 | 3000 | 4 | SF | H | 5.57-6.33 |
| | 520 | 130 | | 18200 | 6200 | 7.00/20 | 9.00/20 | 6-3 1/2x4 1/2 | 282 | 206 | 101 | 3000 | 4 | SF | H | 5.57-6.83 |
| | 620 | 130 | | 21200 | 7000 | 7.50/20 | 10.00/20 | 6-4x4 1/2 | 320 | 240 | 113 | 3000 | 5 | SF | H | Dual Rge. |
| | 404SC | 106 | | 16200 | 5000 | 6.00/20 | 8.25/20 | 6-3 1/2x4 1/2 | 245 | 184 | 89 | 3000 | 4 | SF | H | 5.57-6.83 |
| | 509SC | 106 | | 16200 | 5500 | 7.00/20 | 9.00/20 | 6-3 1/2x4 1/2 | 282 | 206 | 101 | 3000 | 4 | SF | H | 5.57-6.83 |
| | 614SC | 118 | | 21200 | 6500 | 7.50/20 | 10.00/20 | 6-4x4 1/2 | 339 | 272 | 130 | 3000 | 5 | SF | H | 6.50-7.16 |
| | 660 | 133 | | 23000 | 8100 | 9.00/20 | 10.00/20 | 6-4 1/2x4 1/2 | 427 | 348 | 162 | 2700 | 5 | SF | R | Dual Rge. |
| | 733 | 133 | | 25000 | 8800 | 9.00/20 | 11.00/22 | 6-4 1/2x4 1/2 | 427 | 348 | 162 | 2700 | 5 | SF | R | Dual Rge. |
| | 722 | 133 | | 25000 | 9000 | 9.00/20 | 11.00/22 | 6-4 1/2x5 1/2 | 474 | 364 | 162 | 2600 | 5 | SF | R | 5.28-6.83 |
| | 920 | 145 | | 33000 | 11000 | 9.00/20 | 11.00/24 | 6-4 1/2x5 1/2 | 572 | 440 | 190 | 2600 | 5 | 2F | R | 5.28-6.83 |
| (D) | 921 | 145 | | 28000 | 10800 | 9.00/20 | 10.00/20 | 6-4 1/2x6 | 672 | 500 | 50 | 1800 | 5 | 2F | R | Dual Rge. |
| (D) | 921R | 157 | | 36000 | 11200 | 9.00/20 | 11.00/24 | 6-5 1/2x6 | 743 | 502 | 175 | 2000 | 10 | 2F | R | 5.28-6.83 |
| Dodge | B-3-B | 108 | 108 | 4850 | | 6.00/16S | 6.50/16S | 6-3 1/2x4 1/2 | 218 | 175 | 97 | 3600 | 3 | H 1/2 | H | 3.73-4.78 |
| | B-3-C | 116 | 116 | 5800 | | 7.00/15S | 7.00/15S | 6-3 1/2x4 1/2 | 218 | 175 | 97 | 3600 | 3 | H 1/2 | H | 4.1 -4.78 |
| | B-3-D | 116 | 126 | 8000 | | 6.00/16S | 6.50/16 | 6-3 1/2x4 1/2 | 230 | 190 | 103 | 3800 | 3 | HyF | H | 3.9 -4.89 |
| Rt. Van Sp. | B3DU | 102 | 117 | 9600 | | 6.50/16* | 8.25/16S | 6-3 1/2x4 1/2 | 230 | 190 | 99 | 3800 | 3 | HyF | H | 3.9 -4.89 |
| Rt. Van Sp. | B3EU | 102 | 142 | 10100 | | 7.50/16* | 9.00/16S | 6-3 1/2x4 1/2 | 230 | 190 | 99 | 3600 | 4 | HyF | H | 4.89-5.8 |
| | B-3-FL | 128 | 152 | 9000 | | 6.00/20‡ | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 192 | 109 | 3600 | 4 | HyF | H | 5.62-6.8 |
| | B-3-F | 128 | 170 | 13500 | | 6.50/20 | 7.50/20 | 6-3 1/2x4 1/2 | 236 | 192 | 109 | 3600 | 4 | HyF | H | 5.62-6.8 |
| | B-3-FA | 128 | 170 | 13500 | | 6.50/20 | 7.50/20 | 6-3 1/2x4 1/2 | 236 | 192 | 109 | 3600 | 4 | SFd | H | 5.83-8.11 |
| | B-3-G | 128 | 192 | 14500 | | 6.50/20‡ | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 192 | 109 | 3600 | 4 | HyF | H | 5.62-6.8 |
| | B-3-GA | 128 | 192 | 14500 | | 6.50/20‡ | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 192 | 109 | 3600 | 4 | SFd | H | 5.83-8.11 |
| | B-3-GM | 107 | 161 | 14750 | | 6.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 186 | 105 | 3600 | 4 | HyF | H | 5.62-6.8 |
| | B-3-GMA | 107 | 161 | 14750 | | 6.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 186 | 105 | 3600 | 4 | SFd | H | 5.83-8.11 |
| | B-3-H | 128 | 192 | 16000 | | 7.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 193 | 109 | 3600 | 4 | HyF | H | 6.28-6.8 |
| | B-3-HA | 128 | 192 | 16000 | | 7.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 193 | 109 | 3600 | 4 | SFd | H | 5.83-8.11 |
| | B-3-HM | 107 | 161 | 16250 | | 7.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 186 | 105 | 3600 | 4 | HyF | H | 6.28-6.8 |
| | B-3-HMA | 107 | 161 | 16250 | | 7.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 186 | 105 | 3600 | 4 | SFd | H | 5.83-8.11 |
| | B-2-HH | 128 | 192 | 16000 | | 7.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 193 | 109 | 3600 | 4 | HyF | H | 6.28-6.8 |
| | B-3-HHA | 128 | 192 | 16000 | | 7.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 193 | 109 | 3600 | 4 | SFd | H | 5.83-8.11 |
| | B-3-HHM | 107 | 161 | 16250 | | 7.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 186 | 105 | 3600 | 4 | HyF | H | 6.28-6.8 |
| | B-3-HHMA | 107 | 161 | 16250 | | 7.50/20 | 8.25/20 | 6-3 1/2x4 1/2 | 236 | 186 | 105 | 3600 | 4 | SFd | H | 5.83-8.11 |
| | B-3-JL | 128 | 212 | 17000 | | 6.50/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 206 | 114 | 3600 | 5 | HyF | H | 6.28-7.16 |
| | B-3-JAL | 128 | 212 | 17000 | | 6.50/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 206 | 114 | 3600 | 5 | SFd | H | 5.83-8.11 |
| | B-3-J | 128 | 212 | 17000 | | 6.50/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 206 | 114 | 3600 | 5 | HyF | H | 6.28-7.16 |
| | B-3-JA | 128 | 212 | 17000 | | 6.50/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 206 | 114 | 3600 | 5 | SFd | H | 5.83-8.11 |
| | B-3-JML | 107 | 161 | 17250 | | 6.50/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 200 | 109 | 3600 | 5 | HyF | H | 6.28-7.16 |
| | B-3-JMAL | 107 | 161 | 17250 | | 6.50/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 200 | 109 | 3600 | 5 | SFd | H | 5.83-8.81 |
| | B-3-JM | 107 | 161 | 17250 | | 6.50/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 200 | 109 | 3600 | 5 | HyF | H | 6.28-7.16 |
| | B-3-JMA | 107 | 161 | 17250 | | 6.50/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 200 | 109 | 3600 | 5 | SFd | H | 5.83-8.81 |
| | B-3-KL | 128 | 212 | 18000 | | 8.25/20‡ | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 206 | 114 | 3600 | 5 | HyF | H | 6.8 -7.2 |
| | B-3-KAL | 128 | 212 | 18000 | | 8.25/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 206 | 114 | 3600 | 5 | SFd | H | 6.14-9.04 |
| | B-3-K | 128 | 212 | 18000 | | 8.25/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 206 | 114 | 3600 | 5 | HyF | H | 6.8 -7.2 |
| | B-3-KA | 128 | 212 | 18000 | | 8.25/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 206 | 114 | 3600 | 5 | SFd | H | 6.14-9.04 |
| | B-3-KML | 107 | 161 | 18250 | | 8.25/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 200 | 109 | 3600 | 5 | HyF | H | 6.8 -7.2 |
| | B-3-KMAL | 107 | 161 | 18250 | | 8.25/20 | 9.00/20 | 6-3 1/2x4 1/2 | 250 | 200 | 109 | 3600 | 5 | SFd | H | 6.14-9.04 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F-4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cowl | 1HTL-84 | 134 | 134 | 10000 | | 3457 | 7.00/20-8S | 7.00/18-8 | 6-3 3/4x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | 5.14-5.83 |
| Cowl | 1RTL-84 | 134 | 134 | 10000 | | 3497 | 7.00/20-8S | 7.00/18-8 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | SF | H | 5.14-5.83 |
| F-5 | | | | | | | | | | | | | | | | |
| Cowl | 1HT-84 | 134 | 134 | 14000 | | 3646 | 6.50/20-6 | 7.50/20-8 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | 5.14-6.67 |
| Cowl | 1RT-84 | 134 | 134 | 14000 | | 3686 | 6.50/20-6 | 7.50/20-8 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | SF | H | 5.14-6.67 |
| Cowl | 1H8T-84 | 158 | 158 | 14000 | | 3796 | 6.50/20-6 | 7.50/20-8 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | 5.14-6.67 |
| Cowl | 1R8T-84 | 158 | 158 | 14000 | | 3836 | 6.50/20-6 | 7.50/20-8 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | SF | H | 5.14-6.67 |
| Cowl | 1H6T-84 | 176 | 176 | 14000 | | 3926 | 6.50/20-6 | 7.50/20-8 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | 5.14-6.67 |
| Cowl | 1R6T-84 | 176 | 176 | 14000 | | 3966 | 6.50/20-6 | 7.50/20-8 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | SF | H | 5.14-6.67 |
| F-5 C.O.E. | | | | | | | | | | | | | | | | |
| Cab | 1HOW-81 | 110 | 110 | 14000 | | 4346 | 6.50/20-6 | 7.50/20-8 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | 5.14-6.67 |
| Cab | 1ROW-81 | 110 | 110 | 14000 | | 4386 | 6.50/20-6 | 7.50/20-8 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | SF | H | 5.14-6.67 |
| Cab | 1HW-81 | 134 | 134 | 14000 | | 4476 | 6.50/20-6 | 7.50/20-8 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | 5.14-6.67 |
| Cab | 1RW-81 | 134 | 134 | 14000 | | 4516 | 6.50/20-6 | 7.50/20-8 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | SF | H | 5.14-6.67 |
| Cab | 1H8W-81 | 158 | 158 | 14000 | | 4546 | 6.50/20-6 | 7.50/20-8 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | 5.14-6.67 |
| Cab | 1R8W-81 | 158 | 158 | 14000 | | 4586 | 6.50/20-6 | 7.50/20-8 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | SF | H | 5.14-6.67 |
| F-5 School Bus | | | | | | | | | | | | | | | | |
| Bus Cl. | 1H8T-84 | 158 | 158 | 12000 | | 3755 | 6.50/20-6 | 7.00/20-8 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | 5.14-6.67 |
| Bus Cl. | 1R8T-84 | 158 | 158 | 12000 | | 3795 | 6.50/20-6 | 7.00/20-8 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | SF | H | 5.14-6.67 |
| F-6 School Bus | | | | | | | | | | | | | | | | |
| Bus Cl. | 1H4T-84 | 194 | 194 | 15000 | | 4260 | 7.50/20-8 | 8.25/20-10 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | SF | H | 5.14-6.67 |
| Bus Cl. | 1R4T-84 | 194 | 194 | 15000 | | 4300 | 7.50/20-8 | 8.25/20-10 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | SF | H | 5.14-5.67 |
| F-6 | | | | | | | | | | | | | | | | |
| Cowl | 1HTH-84 | 134 | 134 | 16000 | | 3980 | 7.50/20-8 | 8.25/20-10 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | Hy | H | 6.2 -7.2 |
| Cowl | 1RTH-84 | 134 | 134 | 16000 | | 4020 | 7.50/20-8 | 8.25/20-10 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | Hy | H | 6.2 -7.2 |
| Cowl | 1MTH-84 | 134 | 134 | 16000 | | 4165 | 7.50/20-8 | 8.25/20-10 | 6-3.5x4.4 | 254 | 212 | 110-3400 | 4 | Hy | H | 6.2 -7.2 |
| Cowl | 1H8TH-84 | 158 | 158 | 16000 | | 4050 | 7.50/20-8 | 8.25/20-10 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | Hy | H | 6.2 -7.2 |
| Cowl | 1R8TH-84 | 158 | 158 | 16000 | | 4090 | 7.50/20-8 | 8.25/20-10 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | Hy | H | 6.2 -7.2 |
| Cowl | 1M8TH-84 | 158 | 158 | 16000 | | 4235 | 7.50/20-8 | 8.25/20-10 | 6-3.5x4.4 | 254 | 212 | 110-3400 | 4 | Hy | H | 6.2 -7.2 |
| Cowl | 1H6TH-84 | 176 | 176 | 16000 | | 4130 | 7.50/20-8 | 8.25/20-10 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | Hy | H | 6.2 -7.2 |
| Cowl | 1R6TH-84 | 176 | 176 | 16000 | | 4170 | 7.50/20-8 | 8.25/20-10 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | Hy | H | 6.2 -7.2 |
| Cowl | 1M6TH-84 | 176 | 176 | 16000 | | 4315 | 7.50/20-8 | 8.25/20-10 | 6-3.5x4.4 | 254 | 212 | 110-3400 | 4 | Hy | H | 6.2 -7.2 |
| F-6 C.O.E. | | | | | | | | | | | | | | | | |
| Cab | 1HOWH-81 | 110 | 110 | 16000 | | 4549 | 7.50/20-8 | 8.25/20-10 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | Hy | H | 6.2 -7.2 |
| Cab | 1ROWH-81 | 110 | 110 | 16000 | | 4589 | 7.50/20-8 | 8.25/20-10 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | Hy | H | 6.2 -7.2 |
| Cab | 1MOWH-81 | 110 | 110 | 16000 | | 4574 | 7.50/20-8 | 8.25/20-10 | 6-3.5x4.4 | 254 | 210 | 105-3400 | 4 | Hy | H | 6.2 -7.2 |
| Cab | 1HWH-81 | 134 | 134 | 16000 | | 4679 | 7.50/20-8 | 8.25/20-10 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | Hy | H | 6.2 -7.2 |
| Cab | 1RWH-81 | 134 | 134 | 16000 | | 4719 | 7.50/20-8 | 8.25/20-10 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | Hy | H | 6.2 -7.2 |
| Cab | 1MWH-81 | 134 | 134 | 16000 | | 4704 | 7.50/20-8 | 8.25/20-10 | 6-3.5x4.4 | 254 | 210 | 105-3400 | 4 | Hy | H | 6.2 -7.2 |
| Cab | 1H8WH-81 | 158 | 158 | 16000 | | 4749 | 7.50/20-8 | 8.25/20-10 | 6-3.3x4.4 | 226 | 180 | 95-3300 | 4 | Hy | H | 6.2 -7.2 |
| Cab | 1R8WH-81 | 158 | 158 | 16000 | | 4789 | 7.50/20-8 | 8.25/20-10 | 6-3 1/2x3 3/4 | 239 | 180 | 100-3800 | 4 | Hy | H | 6.2 -7.2 |
| Cab | 1M8WH-81 | 158 | 158 | 16000 | | 4774 | 7.50/20-8 | 8.25/20-10 | 6-3.5x4.4 | 254 | 210 | 105-3400 | 4 | Hy | H | 6.2 -7.2 |
| F-7 | | | | | | | | | | | | | | | | |
| Cowl | 1EQ-84 | 135 | 135 | 19000 | | 5478 | 8.25/20-10 | 9.00/20-10 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | Hy | H | ** -6.8 |
| Cowl | 1E7Q-84 | 147 | 147 | 19000 | | 5528 | 8.25/20-10 | 9.00/20-10 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | Hy | H | ** -6.8 |
| Cowl | 1E9Q-84 | 159 | 159 | 19000 | | 5648 | 8.25/20-10 | 9.00/20-10 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | Hy | H | ** -6.8 |
| Cowl | 1EBQ-84 | 179 | 179 | 19000 | | 5748 | 8.25/20-10 | 9.00/20-10 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | Hy | H | ** -6.8 |
| Cowl | 1E5Q-84 | 195 | 195 | 19000 | | 5808 | 8.25/20-10 | 9.00/20-10 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | Hy | H | ** -6.8 |
| F-8 | | | | | | | | | | | | | | | | |
| Cowl | 1EQH-84 | 135 | 135 | 22000 | | 5834 | 9.00/20-10 | 10.0/20-12 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | SF | H | ** -7.17 |
| Cowl | 1E7QH-84 | 147 | 147 | 22000 | | 5884 | 9.00/20-10 | 10.0/20-12 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | SF | H | ** -7.17 |
| Cowl | 1E9QH-84 | 159 | 159 | 22000 | | 6224 | 9.00/20-10 | 10.0/20-12 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | SF | H | ** -7.17 |
| Cowl | 1E8QH-84 | 179 | 179 | 22000 | | 6124 | 9.00/20-10 | 10.0/20-12 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | SF | H | ** -7.17 |
| Cowl | 1E5QH-84 | 195 | 195 | 22000 | | 6284 | 9.00/20-10 | 10.0/20-12 | 6-3 1/2x4 1/2 | 337 | 255 | 145-3600 | 5 | SF | H | ** -7.17 |
| Freightliner | | | | | | | | | | | | | | | | |
| (c.o.e.) | B-42 | 112 | 174 | 34000 | *11200 | 10.00/22 | | | 6-5 1/2x6 | 743 | 540 | 185-1800 | 8 | SFd | H | 4.33-6.67 |
| G.M.C. | 100-22 | 116 | 125 | 4800 | | 2615 | 6.00/16S | 6.50/16 | 6-3 1/2x3 1/2 | 228 | 178 | 96-3200 | 3 | H 1/2 | T | ** -4.11 |
| | Sub. 100-22 | 116 | | 4800 | | 3875 | 6.00/16S | 6.50/16 | 6-3 1/2x3 1/2 | 228 | 178 | 96-3200 | 3 | H 1/2 | T | ** -4.11 |
| | 150-22 | 125 | | 5800 | | 2870 | 15*S | 7.50/17 | 6-3 1/2x3 | 228 | 178 | 96-3200 | 3 | HyF | T | ** -4.11 |
| | P150-22 | 125 | | 7000 | | 2550 | 15*S | 7.50/17 | 6-3 1/2x3 | 228 | 178 | 96-3200 | 3 | HyF | T | ** -5.14 |
| | 250-22 | 125 | 137 | 8800 | | 3130 | 7.00/17S | 7.00/18 | 6-3 1/2x3 1/2 | 228 | 178 | 96-3200 | 3 | HyF | H | ** -5.14 |
| | 280-22 | 137 | 161 | 11000 | | 3725 | 7.00/20 | 7.50/20 | 6-3 1/2x3 1/2 | 228 | 178 | 96-3200 | 3 | HyF | H | ** -5.43 |
| (T) | 3C0-24 | 137 | 179 | 14000 | | 3965 | 6.50/20 | 7.50/20 | 6-3 1/2x3 1/2 | 248 | 195 | 110-3600 | 4 | HyF | H | ** -5.43 |
| (T) | 350-24 | 137 | 197 | 16000 | | 4220 | 7.50/20 | 8.25/20 | 6-3 1/2x3 1/2 | 248 | 195 | 110-3600 | 4 | HyF | H | ** -6.17 |
| (T) | F350-24 | 110 | 179 | 16000 | | 4755 | 7.50/20 | 8.25/20 | 6-3 1/2x3 1/2 | 248 | 195 | 110-3600 | 4 | HyF | H | ** -6.17 |
| | S300-24 | 197 | | 14500 | | 4565 | 7.50/20 | 8.25/20 | 6-3 1/2x3 1/2 | 248 | 195 | 110-3600 | 4 | HyF | H | ** -6.17 |
| Kenworth (D) | 521 | 165 | 255 | 28000 | | 12000 | 10.00/20 | 11.00/22 | 6-4 1/2x6 | 672 | 500 | 150-1800 | 4 | H2F | H | 5.91-9.76 |
| | 585 | 165 | 255 | 28000 | | 9800 | 10.00/20 | 11.00/22 | 6-4 1/2x5 1/2 | 584 | 450 | 168-2600 | 5 | HF | H | 5.29-7.40 |
| Linn | A-15 | 120 | | 9000 | | 6000 | 7.50/20S | 8.25/20S | 6-3 1/2x4 1/2 | 245 | 184 | 91-3200 | 4 | N | N | None |
| | A-25 | 156 | | 11200 | | 6200 | 7.50/20S | 8.25/20 | 6-3 1/2x4 1/2 | 245 | 184 | 91-3200 | 4 | N | N | None |
| | A-35 | 169 | | 14700 | | 7900 | 7.50/20D | 8.25/20 | 6-3 3/4x4 1/2 | 282 | 207 | 103-3200 | 4 | N | N | None |
| | A-45 | 205 | | 18900 | | 8100 | 7.50/20D | 8.25/20 | 6-3 3/4x4 1/2 | 282 | 207 | 103-3200 | 4 | N | N | None |
| Mar. Her. | DVL-4 | 90 | 118 | 26750 | | | 7.50/16S | 8.25/18S | 4-3 1/2x4 1/2 | 134 | 105 | 69-4000 | 3 | | | 7.10 |
| Peterbilt (D) | 280 | 175 | Opt | 35000 | 12500 | 10.00/20D | 11.00/22 | | 6-4 1/2x6 | 672 | 500 | 150-1800 | 12 | 2F | R | ** -6.42 |

(Continued on next page)

# 1951 TRUCK SPECIFICATIONS—continued

| MAKE AND MODEL | | WHEEL-BASE: Minimum Standard | WHEEL-BASE: Maximum Standard | Gross Vehicle Weight for Normal Service | Chassis Weight (See definition) | TIRE SIZES (D-dual rear, S-single rear): Standard Front and Rear | TIRE SIZES: Maximum Authorized Tire Size (Duals unless noted) | ENGINE DETAILS: No. of Cylinders Bore and Stroke | ENGINE DETAILS: Displacement | ENGINE DETAILS: Torque lb. ft. | ENGINE DETAILS: Maximum Brake H.P. at R.P.M. Given | No. of Forward Speeds | REAR AXLE: Gear and Type | REAR AXLE: Drive and Torque | REAR AXLE: Gear Ratio Range in High |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Reo | F-20A | 125 | 125 | 16000 | 4785 | 7.50 20 | 8.25 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | HF | H | 5.28x6.8 |
| | F-20T | 125 | 125 | 16000 | 5215 | 8.25 20 | 8.25 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | Hfd | H | 6.13-8.10 |
| | F-20B | 150 | 150 | 16000 | 4925 | 7.50 20 | 8.25 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | HF | H | 5.28-6.8 |
| | F-20C | 170 | 170 | 16000 | 5060 | 7.50 20 | 8.25 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | HF | H | 5.28-6.8 |
| | F-20L | 185 | 185 | 16000 | 5185 | 7.50 20 | 8.25 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | HF | H | 5.28-6.8 |
| | F-21A | 130 | 130 | 18000 | 5110 | 8.25 20 | 9.00 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | HF | H | 5.28-6.8 |
| | F-21T | 130 | 130 | 18000 | 5535 | 8.25 20 | 9.00 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | Hfd | H | 6.13-8.10 |
| | F-21B | 150 | 150 | 18000 | 5325 | 8.25 20 | 9.00 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | HF | H | 5.28-6.8 |
| | F-21C | 170 | 170 | 18000 | 5460 | 8.25 20 | 9.00 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | HF | H | 5.28-6.8 |
| | F-21L | 185 | 185 | 18000 | 5555 | 8.25 20 | 9.00 20 | 6-3½x4½ | 255 | 189 | 107 3400 | 4 | HF | H | 5.28-6.8 |
| | F-22A | 130 | 130 | 20000 | 5840 | 9.00 20 | 10.00 20 | 6-3⅞x4½ | 292 | 224 | 124 3300 | 5 | HF | H | 6.16-6.8 |
| | F-22T | 130 | 130 | 20000 | 6415 | 9.00 20 | 10.00 20 | 6-3⅞x4½ | 292 | 224 | 124 3300 | 5 | Hfd | H | 6.67-8.85 |
| | F-22B | 150 | 150 | 20000 | 6005 | 9.00 20 | 10.00 20 | 6-3⅞x4½ | 292 | 224 | 124 3300 | 5 | HF | H | 6.16-6.8 |
| | F-22C | 170 | 170 | 20000 | 6140 | 9.00 20 | 10.00 20 | 6-3⅞x4½ | 292 | 224 | 124 3300 | 5 | HF | H | 6.16-6.8 |
| | F-22L | 185 | 185 | 20000 | 6275 | 9.00 20 | 10.00 20 | 6-3⅞x4½ | 292 | 224 | 124 3300 | 5 | HF | H | 6.16-6.8 |
| | F-22RA | 130 | 130 | 22000 | 6420 | 10.00 20 | 10.00 22 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | HF | H | 6.16-7.4 |
| | F-22RT | 130 | 130 | 22000 | 6880 | 10.00 20 | 10.00 22 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | Hfd | H | 6.36-8.28 |
| | F-22RB | 150 | 150 | 22000 | 6565 | 10.00 20 | 10.00 22 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | HF | H | 6.16-7.4 |
| | F-22RC | 170 | 170 | 22000 | 6680 | 10.00 20 | 10.00 22 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | HF | H | 6.16-7.4 |
| | F-22RL | 185 | 185 | 22000 | 6805 | 10.00 20 | 10.00 22 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | HF | H | 6.16-7.4 |
| | F-22SA | 130 | 130 | 24000 | 7305 | 10.00 20 | 11.00 20 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | HF | H | 6.16-6.83 |
| | F-22ST | 130 | 130 | 24000 | 7765 | 10.00 20 | 11.00 20 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | Hfd | H | 6.42-8.38 |
| | F-22SB | 150 | 150 | 24000 | 7485 | 10.00 20 | 11.00 20 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | HF | H | 6.16-6.83 |
| | F-22SC | 170 | 170 | 24000 | 7670 | 10.00 20 | 11.00 20 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | HF | H | 6.16-6.83 |
| | F-22SL | 185 | 185 | 24000 | 7825 | 10.00 20 | 11.00 20 | 6-4½x4½ | 331 | 264 | 140 3200 | 5 | HF | H | 6.16-6.83 |
| | F-23A | 130 | 130 | 25000 | 7895 | 11.00 20 | 11.00 20 | 6-4½x4½ | 427 | 343 | 151 2800 | 5 | HF | H | 6.16-6.83 |
| | F-23T | 130 | 130 | 26000 | 8155 | 11.00 20 | 11.00 20 | 6-4½x4½ | 427 | 343 | 151 2800 | 5 | HF | H | 6.16-6.83 |
| | F-23B | 150 | 150 | 26000 | 7865 | 11.00 20 | 11.00 20 | 6-4½x4½ | 427 | 343 | 151 2800 | 5 | HF | H | 6.16-6.83 |
| | F-23C | 170 | 170 | 26000 | 8035 | 11.00 20 | 11.00 20 | 6-4½x4½ | 427 | 343 | 151 2800 | 5 | HF | H | 6.16-6.83 |
| | F-23L | 185 | 185 | 26000 | 8195 | 11.00 20 | 11.00 20 | 6-4½x4½ | 427 | 343 | 151 2800 | 5 | HF | H | 6.16-6.83 |
| Sterling | HD97 | 148 | 175 | 24000 | 9150 | 9.00 20 | 11.00 20 | 6-4½x4½ | 404 | 290 | 130 3000 | 5 | HyF | R | 5.29-7.80 |
| | HD105 | 148 | 175 | 24000 | 9550 | 10.00 20 | 11.00 22 | 6-4½x4½ | 404 | 290 | 130 3000 | 5 | HyF | R | 5.29-7.40 |
| | HD115 | 148 | 175 | 32000 | 10650 | 10.00 20 | 11.00 24 | 6-4½x5½ | 517 | 368 | 125 2250 | 5 | 2F | R | 6.42-9.83 |
| | HD145 | 148 | 175 | 36000 | 11250 | 11.00 20 | 12.00 24 | 6-4½x5½ | 517 | 368 | 125 2250 | 5 | 2F | R | 7.69-11.36 |
| (D) | HD115H | 158 | 185 | 32000 | 11950 | 10.00 20 | 11.00 24 | 6-4¾x6 | 672 | 500 | 150 1800 | 4 | 2F | R | 6.42-9.83 |
| (D) | HD145H | 158 | 185 | 36000 | 12550 | 11.00 20 | 12.00 24 | 6-4¾x6 | 672 | 500 | 150 1800 | 4 | 2F | R | 7.69-11.36 |
| | HC97 | 148 | 175 | 24000 | 9200 | 9.00 20 | 11.00 20 | 6-4½x4½ | 404 | 290 | 130 3000 | 5 | CD | R | 6.70-10.82 |
| | HC105 | 148 | 175 | 28000 | 9700 | 10.00 20 | 11.00 22 | 6-4½x4½ | 404 | 290 | 130 3000 | 5 | CD | R | 6.70-10.82 |
| | HC115 | 148 | 175 | 32000 | 10350 | 10.00 20 | 11.00 24 | 6-4½x5½ | 517 | 368 | 125 2250 | 5 | CD | R | 6.70-10.82 |
| | HC144 | 148 | 175 | 36000 | 11250 | 10.00 22 | 12.00 24 | 6-4½x5½ | 517 | 368 | 125 2250 | 5 | CD | R | 6.70-10.82 |
| | HC147 | 148 | 175 | 36000 | 11500 | 10.00 22 | 12.00 24 | 6-4½x5½ | 517 | 368 | 125 2250 | 5 | CD | R | 6.70-10.82 |
| | HC175 | 167 | 185 | 45000 | 14600 | 12.00 24† | 14.00 24† | 6-5¼x6 | 779 | 585 | 186 2100 | 12 | CD | R | 7.31-12.42 |
| | HC250 | 178 | 190 | 60000 | 18400 | 14.00 24† | 14.00 24† | 6-5¼x6 | 779 | 585 | 186 2100 | 12 | CD | R | 7.31-12.42 |
| (D) | HC115H | 167 | 185 | 32000 | 12250 | 10.00 20 | 11.00 24 | 6-4¾x6 | 672 | 500 | 150 1800 | 12 | CD | R | 6.70-10.82 |
| (D) | HC175H | 167 | 185 | 45000 | 14930 | 12.00 24† | 14.00 24† | 6-4¾x6 | 672 | 500 | 150 1800 | 12 | CD | R | 7.31-12.42 |
| (D) | HC250H | 178 | 190 | 60000 | 18700 | 14.00 24† | 14.00 24† | 6-4¾x6 | 672 | 500 | 150 1800 | 12 | CD | R | 7.31-12.42 |
| Studebaker | 2R5 | 112 | 112 | 4600 | 2125 | 6.00 16S | 6.50 16S | 6-3x4 | 170 | 138 | 85 4000 | 3 | Hy | H | 4.89-4.09 |
| | 2R6 | 112 | 122 | 4600 | 2365 | 6.00 16S | 6.50 16S | 6-3⅛x4½ | 245 | 205 | 102 3200 | 3 | Hy | H | 4.09-4.89 |
| | 2R10 | 122 | 122 | 6100 | 2400 | 6.50 16S | 7.50 16S | 6-3x4 | 170 | 138 | 85 4000 | 3 | SF | H | 5.57-4.86 |
| | 2R11 | 122 | 122 | 6100 | 2640 | 6.50 16S | 7.50 16S | 6-3⅛x4½ | 245 | 205 | 102 3200 | 3 | SF | H | ** -4.86 |
| | 2R14-21 | 121 | 121 | 7800 | 3245 | 7.00 17S | 7.00 20 | 6-3⅛x4½ | 245 | 205 | 102 3200 | 4 | SF | H | 5.83-6.66 |
| | 2R15-21 | 121 | 121 | 7800 | 3005 | 7.00 17S | 7.00 20 | 6-3x4 | 170 | 138 | 85 4000 | 4 | SF | H | 5.83-6.66 |
| | 2R15-31 | 131 | 131 | 10000 | 3065 | 7.00 17S | 7.00 20 | 6-3x4 | 170 | 138 | 85 4000 | 4 | SF | H | 5.83-6.66 |
| | 2R16A | 131 | 195 | 14000 | 3695 | 6.50 20D | 8.25 20 | 6-3⅛x4½ | 245 | 205 | 102 3200 | 4 | SF | H | 6.66-5.83 |
| | 2R16B | 131 | 195 | 15000 | 3695 | 6.50 20D | 8.25 20 | 6-3⅛x4½ | 245 | 205 | 102 3200 | 4 | Hy | H | 6.66-5.83 |
| | 2R17A | 131 | 195 | 16000 | 4180 | 7.50 20D | 9.00 20 | 6-3⅛x4½ | 245 | 205 | 102 3200 | 4 | Hy | H | 6.80-6.20 |
| | 2R17B | 131 | 195 | 17000 | 4180 | 7.50 20D | 9.00 20 | 6-3⅛x4½ | 245 | 205 | 102 3200 | 4 | Hy | H | 6.80-6.20 |
| Ward La Fr. | D-1 | 149 | 220 | 25000 | * 9500 | 10.00 20 | 11.00 20 | 6-4½x4½ | 427 | 340 | 152 2600 | 5 | B | R | ** -8.83 |
| | D-1C | 149 | 220 | 25000 | * 9500 | 11.00 20 | 11.00 22 | 6-4½x4½ | 427 | 340 | 152 2600 | 5 | S2 | R | ** -7.08 |
| | D-2K | 149 | 220 | 29000 | *10000 | 11.00 20 | 11.00 22 | 6-4¾x5½ | 528 | 425 | 168 2400 | 5 | S2 | R | ** -7.84 |
| | D-2Z | 149 | 220 | 29000 | *10000 | 11.00 20 | 11.00 20 | 6-4½x5½ | 554 | 456 | 184 2400 | 5 | S2 | R | ** -7.84 |
| | D-3 | 149 | 220 | 29000 | *10000 | 11.00 20 | 11.00 22 | 6-4½x5½ | 572 | 440 | 189 2600 | 5 | S2 | R | ** -7.84 |

| MAKE AND MODEL | | WHEEL-BASE: Minimum Standard | WHEEL-BASE: Maximum Standard | Gross Vehicle Weight for Normal Service | Chassis Weight (See definition) | TIRE SIZES (D-dual rear, S-single rear): Standard Front and Rear | TIRE SIZES: Maximum Authorized Tire Size (Duals unless noted) | ENGINE DETAILS: No. of Cylinders Bore and Stroke | ENGINE DETAILS: Displacement | ENGINE DETAILS: Torque lb. ft. | ENGINE DETAILS: Maximum Brake H.P. at R.P.M. Given | No. of Forward Speeds | REAR AXLE: Gear and Type | REAR AXLE: Drive and Torque | REAR AXLE: Gear Ratio Range in High |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Marmon-Herr—Cont'd | MH615A | 159 | 193 | 26000 | *10158 | 10.00 20D | 11.00 20 | 6-4¼x4½ | 404 | 312 | 139 2600 | 5 | 2S | H | ** -8.43 |
| | MH620A | 159 | 193 | 28000 | *10615 | 10.00 20D | 11.00 20 | 6-4¾x5½ | 529 | 408 | 146 2600 | 5 | 2S | H | ** -8.43 |
| | MH625 | 159 | 193 | 30000 | *11511 | 11.00 20D | 12.00 20 | 6-4¾x5½ | 529 | 408 | 146 2600 | 5 | 2S | H | ** -8.59 |
| | MH630 | 158 | 193 | 33000 | *11711 | 11.00 20D | 12.00 20 | 6-4¾x5½ | 558 | 440 | 189 2600 | 5 | 2S | H | ** -8.59 |
| Oshkosh | W-212 | 144 | 159 | 21000 | * 8430 | 9.00 20D | 9.00 20 | 6-4x4½ | 339 | 272 | 130 3000 | 5 | SF | H | ** -7.2 |
| | W-312 | 149 | 205 | 25000 | *10000 | 10.00 20D | 11.00 20 | 6-4¼x4½ | 404 | 312 | 139 2600 | 5 | SF | H | ** -6.8 |
| | W1700 | 150 | 205 | 28000 | *11000 | 11.00 20D | 12.00 20S | 6-4¾x5½ | 529 | 395 | 131 2200 | 5 | SF | H | ** -6.4 |
| | WA-700 | 150 | 205 | 30000 | *12000 | 11.00 20D | 12.00 20 | 6-4¾x5½ | 529 | 395 | 131 2200 | 10 | 2F | H | ** -6.8 |
| | WA-703 | 150 | 205 | 30000 | *12200 | 11.00 20D | 12.00 20 | 6-4¾x5½ | 558 | 430 | 153 2200 | 10 | 2F | H | ** -6.8 |
| | W-712 | 150 | 205 | 34300 | *12500 | 11.00 20D | 12.00 20 | 6-4¾x5½ | 558 | 462 | 190 2600 | 5 | 2F | H | ** -6.8 |
| (D) | WA-906R | 160 | 181 | 39000 | *15800 | 12.00 20D | 14.00 20S | 6-5¼x6 | 743 | 540 | 165 1800 | 12 | 2F | H | ** -6.15 |
| | W2200 | 160 | 181 | 40000 | *16500 | 13.00 20D | 14.00 20S | 6-5¼x6 | 779 | 575 | 188 2100 | 12 | 2F | H | ** -6.15 |
| | W2201 | 160 | 181 | 40000 | *16500 | 13.00 20D | 14.00 20S | 6-5¾x6 | 893 | 670 | 200 1800 | 12 | 2F | H | ** -6.15 |
| (D) | W2204 | 160 | 181 | 45000 | *18500 | 13.00 20D | 14.00 20S | 6-5¼x6½ | 844 | 605 | 180 1800 | 12 | 2F | H | ** -6.4 |
| | W2206 | 160 | 181 | 54000 | *19000 | 13.00 24D | 14.00 24 | 6-5¾x7 | * | 930 | 295 2000 | 10 | 2F | H | ** -6.3 |
| (D) | WA2208 | 160 | 181 | 49000 | *18800 | 13.00 20D | 14.00 20S | 6-5¾x8 | 743 | 838 | 200 2100 | 12 | 2F | H | ** -6.15 |
| (D) | W2209 | 160 | 181 | 54000 | *19500 | 13.00 24D | 14.00 24 | 6-5¾x6 | 743 | 830 | 300 2100 | 10 | 2F | H | ** -6.30 |
| Sterling | DD115 | 160 | 178 | 32000 | 11500 | 10.00 20 | 11.00 24 | 6-4½x5½ | 517 | 368 | 125 2250 | 10 | 2F | H | 6.52-8.6 |
| (D) | DD145H | 167 | 185 | 36000 | 13900 | 11.00 20 | 12.00 24 | 6-4¾x6 | 672 | 500 | 150 1800 | 10 | 2F | H | 7.33-10.3 |
| Walter (c.f.) | FZM | 126 | 150 | 24000 | 9000 | 12.00 20S | | 6-4½x4½ | 404 | 290 | 125 2600 | 6 | 2 | H | ** -8.00 |
| (c.f.) | AEB | 125 | 150 | 32000 | 13000 | 12.00 24S | | 6-4¾x5½ | 554 | 440 | 150 2250 | 6 | 2 | H | ** -9.00 |
| (c.f.) | AGB | 138 | 162 | 32000 | 14000 | 12.00 24S | | 6-5¼x6 | 779 | 585 | 185 2000 | 6 | 2 | H | ** -9.00 |
| (c.f.) | AGR | 138 | 162 | 42000 | 15000 | 12.00 24D | | 6-5¼x6 | 779 | 585 | 185 2000 | 6 | 2 | H | ** -9.00 |
| Ward La Fr. | FD1 | .... | .... | 35000 | *11500 | 11.00 22 | 11.00 22 | 6-4½x5½ | 513 | 435 | 180 2800 | 5 | S2 | R | ** -8.15 |
| (D) | FD2 | .... | .... | 35000 | *12000 | 11.00 24 | 11.00 24 | 6-5¼x6 | 672 | 500 | 150 1800 | 5 | S2 | R | ** -8.15 |
| Willys Jp | CJ-3A | 80 | 80 | 3500 | *2108 | 6.00 16S | 7.00 15S | 4-3¼x4½ | 134 | 105 | 60 4000 | 36 | Hy½ | H | ** -5.38 |
| | 473-4WD | 118 | 118 | 5300 | *3115 | 7.00 16S | | 4-3¼x4½ | 134 | 114 | 72 4000 | 36 | S½ | H | ** -5.38 |
| **Six-Wheelers** | | | | | | | | | | | | | | | |
| Autocar | C5064 | 148 | | 38000 | *12300 | 9.00 20 | 10.00 20 | 6-4x5 | 377 | 292 | 119 .... | 5 | SF | L | 6.83-7.80 |
| | C7064 | 148 | | 38000 | *13000 | 10.00 20 | .... | 6-4½x5½ | 447 | 353 | 145 .... | 5 | SF | L | 6.83-7.80 |
| | C7064S | 148 | | 40000 | *13800 | 10.00 20 | .... | 6-4¼x5½ | 501 | 402 | 165 .... | 5 | 2F | .... | 6.84-10.2 |
| | C9064 | 142 | | 54000 | *15000 | 11.00 20 | 11.00 24 | 6-4¼x5½ | 501 | 402 | 165 .... | 5 | 2F | .... | 7.33-10.3 |
| (D) | DC10064 | 210 | | 40000 | *17800 | 10.00 20 | 11.00 20 | 6-4¾x6 | 672 | 495 | 150 1800 | 4 | W | .... | 7.71-6.16 |
| (D) | DC10064S | 144 | 267 | 62000 | *20150 | 11.00 24 | 12.00 24 | 6-5¼x6 | 743 | 537 | 165 1800 | 5 | .... | .... | 8.07-11.5 |
| (D) | DC20064S | 142 | | 80000 | *23000 | 11.00 24 | †† | 6-5¼x6 | 743 | 537 | 200 2100 | 5 | 2 | .... | 8.07-11.5 |
| Corbitt | G302R34 | 173 | | 34500 | .... | 8.25 20 | 9.00 20 | 6-4⅛x4½ | 427 | 325 | 127 2600 | 5 | SdF | L | 5.71-7.40 |
| | G402R40 | 173 | | 40000 | .... | 9.00 20 | 10.00 20 | 6-4¼x4½ | 427 | 336 | 151 2600 | 5 | SdF | L | 5.57-7.80 |
| (T) (D) | D808Q46-2C | 136 | | 48000 | .... | 10.00 20 | 11.00 22 | 6-5¼x6 | 743 | 540 | 175 2000 | 5 | 2F | H | 4.83-5.91 |
| (D) | D802R46-4R | 188 | | 48000 | .... | 10.00 20 | 11.00 20 | 6-5¼x6 | 743 | 540 | 165 1800 | 10 | WF | L | 4.71-6.17 |
| Dodge | B3VXL, B3VX | 154 | 190 | 35000 | .... | 9.00 20 | 10.00 20 | 6-3⅞x5 | 331 | 280 | 145 3000 | 5 | HyS | L | 6.8 -7.8 |
| | B3VXL, B3YX | 154 | 190 | 43000 | .... | 10.00 20 | 10.00 20 | 6-4x5 | 377 | 330 | 154 3000 | 5 | 2 | L | ** -9.27 |
| Duplex | TH6 | 162 | 220 | 30000 | 9180 | 8.25 20 | 9.00 20 | 6-4x4½ | 320 | 240 | 113 3000 | 10 | BF | L | 6.83-6.16 |
| | RH-6 | 160 | 208 | 40000 | 11500 | 10.00 20 | 11.00 20 | 6-4¼x4½ | 404 | 312 | 139 2800 | 5 | 2F | R | 8.27 |
| (D) | L6 | 172 | 208 | 45000 | 15000 | 11.00 20 | 12.00 20 | 6-4¾x6 | 672 | 495 | 150 1800 | 5 | SF2 | L | 6.8 -9.15 |
| Federal | 663MA | 179 | 225 | 42000 | 14500 | 10.00 20 | 10.00 22 | 6-4¾x5½ | 602 | 466 | 205 3000 | 15 | WF | R | ** -6.16 |
| | 664MAB | 179 | 225 | 60000 | 15850 | 11.00 22 | 12.00 20 | 6-4¾x5½ | 602 | 466 | 205 3000 | 12 | WF | R | ** -7.6 |
| | 664MA | 179 | 225 | 60000 | 15950 | 11.00 22 | 12.00 20 | 6-4¾x5½ | 602 | 466 | 205 3000 | 12 | BR | R | ** -9.15 |
| | 629M | 163 | 199 | 33000 | 8600 | 8.25 20 | 9.00 20 | 6-4x4½ | 320 | 250 | 131 3200 | 10 | SF | R | 7.53-10.35 |
| | 629ML | 163 | 199 | 33000 | 8635 | 8.25 20 | 9.00 20 | 6-4x4½ | 339 | 272 | 131 3200 | 10 | SF | R | 7.53-10.35 |
| | 635M | 167 | 203 | 38000 | 10400 | 9.00 20 | 10.00 20 | 6-4¼x4½ | 371 | 293 | 140 3000 | 10 | SF | R | 8.33-11.45 |
| | 645M | 167 | 215 | 40000 | 12325 | 10.00 22 | 10.00 22 | 6-4¾x4½ | 427 | 347 | 155 2600 | 5* | BR | R | ** 9.16 |
| Freightliner (c.o.e.) | A64 | 176 | | 54000 | *14000 | 10.00 22 | .... | 6-5½x6 | 743 | 575 | 200 2100 | 12 | WF | H | 6.66-8.20 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D-3S | 149 | 220 | 29000 | ^1900 | 11.00/20 | | 11.00/22 | 6-4⅞x5½ | 602 | 463 | 198-2600 | 5 | S2 | R | ** | 7.84 | | | | | | | | | | | | | |
| (D) | D-5 | 149 | 220 | 35000 | ^12500 | 11.00/22 | | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 5 | S2 | R | ** | 6.32 | | | | | | | | | | | | | |
| White | WC16 | 136 | 226 | 18000 | 4980 | 8.50/20 | | 9.00/20 | 6-3⅞x4½ | 298 | 230 | 110-3100 | 4 | HF+ | H | 5.29 | 7.20 | | | | | | | | | | | | | |
| | WC18 | 136 | 226 | 20000 | 5900 | 7.00/20 | | 9.00/20 | 6-3⅞x4½ | 318 | 250 | 114-3000 | 5 | BF+ | H | 5.11 | 7.17 | | | | | | | | | | | | | |
| | WC20 | 136 | 226 | 23000 | 6455 | 7.50/20 | | 10.00/20 | 6-4x4½ | 340 | 270 | 120-3000 | 5 | BF↑ | H | 5.11 | 7.17 | | | | | | | | | | | | | |
| | WC22 | 136 | 226 | 26500 | 7005 | 8.25/20 | | 11.00/20 | 6-3⅞x5½ | 362 | 285 | 125-3000 | 5 | BF+ | R | 4.88 | 7.17 | | | | | | | | | | | | | |
| | WC26 | 136 | 226 | 30000 | 7405 | 9.00/20 | | 11.00/22 | 6-4x5½ | 386 | 315 | 135-3000 | 5 | BF+ | R | 4.88 | 7.17 | | | | | | | | | | | | | |
| | WC28 | 134 | 224 | 32000 | 9060 | 9.00/20 | | 11.00/24 | 6-4⅜x5 | 481 | 350 | 170-3000 | 5 | BF+ | R | 4.88 | 7.17 | | | | | | | | | | | | | |
| | WC32 | 146 | 224 | 37500 | 10160 | 9.00/20 | | 11.00/24 | 6-4⅜x5 | 504 | 405 | 184-3000 | 5 | R | R | 6.67 | 9.50 | | | | | | | | | | | | | |
| | (c.o.e.) 3014 | 99 | 165 | 18000 | ^4880 | 6.50/20 | | 8.25/20 | 6-3⅞x4½ | 245 | 185 | 100- | 4 | HyF | H | 5.20 | 6.80 | | | | | | | | | | | | | |
| | (c.o.e.) 3015 | 99 | 147 | 19000 | | 7.00/20 | | 9.00/20 | 6-3⅞x4½ | 245 | 185 | 100- | 4 | | H | 5.29 | 7.20 | | | | | | | | | | | | | |
| | (c.o.e.) 3016 | 85 | 181 | 18500 | *6325 | 6.50/20 | | 9.00/20 | 6-3⅞x4½ | 298 | 230 | 110-3100 | 4 | HyF | H | 5.29 | 7.20 | | | | | | | | | | | | | |
| | (c.o.e.) 3018 | 85 | 181 | 21000 | *6725 | 7.00/20 | | 9.00/20 | 6-3⅞x4½ | 318 | 250 | 114-3000 | 5 | HyF | H | 5.11 | 7.17 | | | | | | | | | | | | | |
| | (c.o.e.) 3020 | 85 | 181 | 24000 | *7190 | 7.50/20 | | 10.00/20 | 6-4x4½ | 340 | 270 | 120-3000 | 5 | HF+ | H | 4.88 | 7.17 | | | | | | | | | | | | | |
| | (c.o.e.) 3022 | 91 | 181 | 28000 | *8175 | 8.25/20 | | 11.00/22 | 6-3⅞x5½ | 362 | 285 | 125-3000 | 5 | BF+ | R | 4.88 | 7.17 | | | | | | | | | | | | | |
| | (c.o.e.) 3026 | 91 | 181 | 32000 | *8585 | 7.50/20 | | 12.00/20 | 6-4x5½ | 386 | 315 | 135-3000 | 5 | BF+ | R | 4.88 | 7.17 | | | | | | | | | | | | | |
| (T) | WC22T | 136 | 160 | *30000 | 7065 | 8.25/20 | | 11.00/20 | 6-4x5½ | 386 | 315 | 135-3000 | 5 | BF+ | R | 4.88 | 7.17 | | | | | | | | | | | | | |
| (T) | WC26T | 136 | 160 | *35000 | 7465 | 9.00/20 | | 11.00/22 | 6-4x5½ | 386 | 315 | 135-3000 | 5 | BF+ | R | 4.88 | 7.17 | | | | | | | | | | | | | |
| (T) | WC28T | 134 | 158 | *35000 | 9179 | 9.00/20 | | 11.00/24 | 6-4⅜x5 | 504 | 405 | 184-3000 | 5 | BF+ | R | 4.88 | 7.17 | | | | | | | | | | | | | |
| (T) | WC16PLT | 136 | 160 | *40000 | 6020 | 7.00/20 | | 10.00/20 | 6-4x4½ | 340 | 270 | 120-3000 | 5 | HF+ | H | 4.11 | 7.40 | | | | | | | | | | | | | |
| (T) | WC16T | 136 | 160 | *30000 | 5125 | 6.50/20 | | 9.00/20 | 6-3⅞x4½ | 318 | 250 | 114-3000 | 5 | HF+ | H | 5.29 | 7.20 | | | | | | | | | | | | | |
| (T) | WC18T | 136 | 160 | *35000 | 5965 | 7.00/20 | | 9.00/20 | 6-3⅞x4½ | 340 | 270 | 120-3000 | 5 | BF+ | H | 5.11 | 7.17 | | | | | | | | | | | | | |
| (T) | WC20T | 136 | 160 | *45000 | 6535 | 7.50/20 | | 10.00/20 | 6-3⅞x5½ | 362 | 285 | 125-3000 | 5 | BF+ | H | 5.11 | 7.17 | | | | | | | | | | | | | |
| (T) | WC22PLT | 136 | 160 | *50000 | 8725 | 8.25/20 | | 11.00/20 | 6-4x5½ | 386 | 315 | 135-3000 | 5 | BF+ | H | 4.75 | 7.14 | | | | | | | | | | | | | |
| (T) | (c.o.e.) 3016T | 85 | 109 | *33000 | 6375 | 6.50/20 | | 9.00/20 | 6-3⅞x4½ | 318 | 250 | 114-3000 | 5 | HyF | H | 5.29 | 7.20 | | | | | | | | | | | | | |
| (T) | (c.o.e.) 3018T | 85 | 109 | *38000 | 6775 | 7.00/20 | | 9.00/20 | 6-4x4½ | 340 | 270 | 120-3000 | 5 | HyF | H | 5.11 | 7.17 | | | | | | | | | | | | | |
| (T) | (c.o.e.) 3020T | 85 | 109 | *48500 | 7240 | 7.50/20 | | 10.00/20 | 6-4x4½ | 340 | 270 | 120-3000 | 5 | HF+ | H | 5.11 | 7.17 | | | | | | | | | | | | | |
| (T) | (c.o.e) 3022PLT | 91 | 109 | *54000 | 7750 | 8.25/20 | | 11.00/22 | 6-4x5½ | 386 | 315 | 135-3000 | 5 | BF+ | H | 4.75 | 7.14 | | | | | | | | | | | | | |
| (T) | (c.o.e.) 3022T | 91 | 109 | *54000 | 8215 | 8.25/20 | | 11.00/22 | 6-4x5½ | 386 | 315 | 135-3000 | 5 | BF+ | R | 4.88 | 7.17 | | | | | | | | | | | | | |
| (D) | WC26D | 134 | 224 | 27000 | | 9.00/20 | | 11.00/24 | 6-5½x6 | 743 | 540 | 175-1800 | 10 | | R | ** | 5.57 | | | | | | | | | | | | | |
| (D) | WC28D | 134 | 224 | 29000 | | 9.00/20 | | 11.00/24 | 6-5½x6 | 743 | 535 | 200-1800 | 10 | | R | ** | 5.57 | | | | | | | | | | | | | |
| (D) | WC32D | 134 | 224 | 34000 | | 9.00/20 | | 11.00/24 | 6-5½x6 | 743 | 535 | 200-1800 | 10 | | R | ** | 6.67 | | | | | | | | | | | | | |
| (T) (D) | WC26TD | 134 | 158 | *55000 | 11365 | 9.00/20 | | 11.00/24 | 6-5½x6 | 743 | 540 | 175-1800 | 10 | | R | ** | 5.57 | | | | | | | | | | | | | |
| (T) (D) | WC28TD | 134 | 158 | *65000 | 11365 | 9.00/20 | | 11.00/24 | 6-5½x6 | 743 | 535 | 200-1800 | 10 | | R | ** | 5.57 | | | | | | | | | | | | | |
| Willys Sedan | 473 | 104 | 104 | 4000 | *2620 | 6.50/15S | | | 4-3½x4⅝ | 134 | 114 | F2-4000 | 3 | Hy½ | H | ** | 4.88 | | | | | | | | | | | | | |
| Willys | HT | 118 | 118 | 4250 | *2722 | 6.00/16S | 6.50/16S | | 4-3½x4⅝ | 134 | 114 | F2-4000 | 3 | Hy½ | H | ** | 5.38 | | | | | | | | | | | | | |

## Four-Wheel-Drive

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autocar | C8044 | 164 | | 30000 | ^13900 | 11.00/20 | | 12.00/20 | 6-4⅞x5½ | 501 | 402 | 165- | 4 | 2F | H | ** | 8.55 | | | | | | | | | | | | | |
| (D) | DC10044N | 157 | | 38000 | ^16200 | 11.00/24 | | 12.00/24 | 6-5½x6 | 743 | 537 | 200-2100 | 4 | 2F | H | ** | 7.37 | | | | | | | | | | | | | |
| Coleman | G-55 | 136 | 150 | 30000 | 11750 | 11.00/20 | | 12.00/20 | 6-4⅛x5½ | 525 | 400 | 150-2200 | 5 | | | | 9.66 | | | | | | | | | | | | | |
| Corbitt | G101F20 | Opt | | 20000 | | 8.25/20 | | 9.00/20 | 6-4x4½ | 330 | 248 | 104-2800 | 5 | HF | H | ** | 6.8 | | | | | | | | | | | | | |
| | G301F24 | Opt | | 24000 | | 9.00/20 | | 10.00/20 | 6-4⅛x5½ | 371 | 280 | 100-2600 | 5 | 2F | H | ** | 8.43 | | | | | | | | | | | | | |
| | G601F31 | Opt | | 32000 | | 10.00/20 | | 11.00/24 | 6-4⅛x5½ | 513 | 400 | 170-2600 | 5 | 2F | H | 6.65 | 7.33 | | | | | | | | | | | | | |
| (T) (D) | D808U32 | Opt | | 32000 | | 10.00/20 | | 11.00/24 | 6-5½x6 | 743 | 540 | 175-2000 | 5 | 2F | H | ** | 7.33 | | | | | | | | | | | | | |
| Dodge | B-3-PW | 126 | 126 | 9500 | | 7.50/16S | | 9.00/16S | 6-3⅞x4½ | 230 | 186 | 94-3200 | 4 | HyF | H | 4.89 | 5.8 | | | | | | | | | | | | | |
| FWD | LD | 124 | 184 | | *5800 | 6.50/20D | | 9.00/20 | 6-3⅞x4½ | 236 | 190 | 97-3200 | 8 | SF | H | ** | 6.67 | | | | | | | | | | | | | |
| | HA | 132 | 168 | | *7545 | 8.25/20D | | 10.00/20 | 6-4⅛x4 | 320 | 245 | 125-3200 | 5 | SF | H | 6.6 | 9.01 | | | | | | | | | | | | | |
| | HAY | 132 | 168 | | 7945 | 9.00/20D | | 10.00/20 | 6-4⅛x4 | 320 | 245 | 125-3200 | 5 | SF | H | 6.6 | 9.01 | | | | | | | | | | | | | |
| | HR | 132 | 168 | | *8000 | 9.00/20 | | 10.00/20 | 6-4⅛x4½ | 404 | 291 | 130-3000 | 5 | SF | H | 6.6 | 9.01 | | | | | | | | | | | | | |
| | HG | 154 | 154 | | *8050 | 9.00/20 | | 10.00/20 | 6-4⅛x4½ | 404 | 291 | 130-3000 | 5 | SF | H | 6.6 | 9.01 | | | | | | | | | | | | | |
| | HGY | 154 | 154 | | 8400 | 10.00/20D | | 10.00/20 | 6-4⅛x4½ | 404 | 291 | 130-3000 | 5 | SF | H | 6.9 | 9.01 | | | | | | | | | | | | | |
| | HRC | 139 | 163 | | *9500 | 10.00/20D | | 11.00/20 | 6-4⅛x4½ | 525 | 425 | 172-2600 | 10 | SF | H | 5.4 | 9.0 | | | | | | | | | | | | | |
| | HRY | 144 | 168 | | *8400 | 10.00/20D | | 11.00/20 | 6-4⅛x4½ | 404 | 291 | 130-3000 | 5 | SF | H | 6.6 | 9.0 | | | | | | | | | | | | | |
| | SU | 150 | 182 | | ^10570 | 11.00/20D | | 12.00/20 | 6-4⅝x5½ | 517 | 369 | 126-2250 | 5 | BF | H | 6.7 | 9.8 | | | | | | | | | | | | | |
| | YU | 150 | 182 | | ^11570 | 11.00/20D | | 12.00/20 | 6-4⅛x5½ | 525 | 425 | 142-2250 | 5 | SF | H | 5.7 | 10.8 | | | | | | | | | | | | | |
| | ZU | 150 | 182 | | ^12540 | 11.00/20D | | 12.00/20 | 6-4⅝x5½ | 554 | 460 | 188-2600 | 5 | SF | H | 6.6 | 11.4 | | | | | | | | | | | | | |
| | M7G | 150 | 180 | | ^15500 | 12.00/20D | | 12.00/24 | 6-5½x6 | 779 | 590 | 186-2000 | 10 | 2F | H | 5.9 | 8.8 | | | | | | | | | | | | | |
| (D) | M7D | 150 | 180 | | ^16100 | 12.00/20D | | 12.00/24 | 6-5½x6½ | 844 | 605 | 180-1800 | 10 | 2F | H | 5.9 | 8.8 | | | | | | | | | | | | | |
| | M10G | 150 | 180 | | ^15800 | 11.00/24D | | 12.00/24 | 6-5½x6 | 779 | 590 | 186-2000 | 10 | 2F | H | 6.7 | 9.2 | | | | | | | | | | | | | |
| (D) | M10D | 150 | 180 | | ^16400 | 11.00/24D | | 12.00/24 | 6-5½x6½ | 844 | 605 | 180-1800 | 10 | 2F | H | 6.7 | 9.2 | | | | | | | | | | | | | |
| Marmon-Herr | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (C) | R5-4 | 134 | 134 | 15500 | *5100 | 7.50/20D | | 7.50/20 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | S | H | ** | 6.67 | | | | | | | | | | | | | |
| (C) | R6-4 | 158 | 158 | 15500 | *5331 | 7.50/20D | | 7.50/20 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | S | H | ** | 6.67 | | | | | | | | | | | | | |
| (C) | LD7-4 | 114 | | 5300 | *3500 | 15" | | 15" | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | S | H | ** | 4.27 | | | | | | | | | | | | | |
| (C) | R3-4 | 122 | | 6800 | *4100 | 7.50/17 | | 7.50/17 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | S | H | ** | 4.86 | | | | | | | | | | | | | |
| (C) | R4-4 | 134 | | 10000 | *4900 | 7.00/20S | | 7.00/20 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | S | H | ** | 5.83 | | | | | | | | | | | | | |
| (C) | R5-A-COE4 | 110 | 158 | 15500 | *5360 | 7.50/20D | | 7.50/20 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | S | H | ** | 6.67 | | | | | | | | | | | | | |
| (C) | V5-4 | 134 | 178 | 17000 | *5294 | 7.50/20D | | 8.25/20 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| (C) | Q5-4 | 136 | | 21500 | *7100 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 5 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| (C) | Q6-4 | 180 | | 21500 | *7200 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 5 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| (C) | Q7-4 | 196 | | 21500 | *7350 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 5 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| (C) | Q5-L4 | 148 | | 21500 | *7150 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 5 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| (C) | Q6-L4 | 179 | | 21500 | *7275 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 5 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| | MH610A | 159 | 193 | 24000 | *9547 | 10.00/20D | | 11.00/20 | 6-4½x4⅝ | 414 | 312 | 139-2600 | 5 | HyF | H | ** | 6.80 | | | | | | | | | | | | | |

*(Continued on top of facing page)*

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F.W.D. | H6x6G | Opt | Opt | | ^12150 | 9.00/20D | | 10.00/20 | 6-4⅛x4½ | 404 | 291 | 130-3000 | 10 | SF | H | ** | 7.45 | | | | | | | | | | | | | |
| | HRC6X6G | Opt | Opt | | ^12620 | 9.00/20D | | 10.00/20 | 6-4⅛x5½ | 525 | 425 | 172-2600 | 10 | SF | H | ** | 7.4 | | | | | | | | | | | | | |
| | MU6X6G | Opt | Opt | | ^16000 | 11.00/20D | | 12.00/20 | 6-5½x6 | 779 | 590 | 186-2000 | 10 | SF | H | ** | 8.9 | | | | | | | | | | | | | |
| | M6x6G | Opt | Opt | | ^21000 | 11.00/24D | | 12.00/24 | 6-5½x6 | 779 | 590 | 186-2000 | 10 | 2F | L | ** | 6.06 | | | | | | | | | | | | | |
| (D) | M6X6D | Opt | Opt | | ^21600 | 11.00/24D | | 12.00/24 | 6-5½x6½ | 844 | 605 | 180-1800 | 10 | 2F | L | ** | 5.6 | | | | | | | | | | | | | |
| Kenworth | (D) 522 | 191 | 255 | 42000 | 13900 | 10.00/20 | | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 4 | H2F | H | 5.91 | 9.76 | | | | | | | | | | | | | |
| | (D) 523 | 191 | 255 | 42000 | 14800 | 10.00/20 | | 11.00/22 | 6-4⅞x5 | 672 | 500 | 150-1800 | 4 | WF | L | 4.72 | 6.16 | | | | | | | | | | | | | |
| | (D) 524 | 195 | 255 | 42000 | 15500 | 10.00/20 | | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 4 | WF | L | 5.67 | 8.20 | | | | | | | | | | | | | |
| | (D) 548 | 191 | | 50000 | 19100 | 11.00/22 | | 12.00/24 | 6-4⅞x6 | 672 | 500 | 150-1800 | 4 | B2F | L | 8.07 | 11.5 | | | | | | | | | | | | | |
| | (D) 552 | 202 | | 50000 | 21000 | 13.00/24 | | 13.00/24 | 6-4⅞x6 | 672 | 500 | 150-1800 | 4 | B2F | L | 8.07 | 11.5 | | | | | | | | | | | | | |
| (D) | 584 | 191 | | 95000 | 24230 | 12.00/24 | | 14.00/24 | 6-4⅞x6 | 672 | 500 | 150-1800 | 4 | B2F | L | 8.07 | 11.5 | | | | | | | | | | | | | |
| (D) | 825 | 195 | 255 | 42000 | 14430 | 10.00/20 | | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 4 | WF | | 5.67 | 8.20 | | | | | | | | | | | | | |
| | 829 | 178 | 255 | 42000 | 13600 | 10.00/20 | | 11.00/22 | 6-4⅞x5½ | 554 | 450 | 188-2600 | 5 | B2 | L | 6.84 | 10.2 | | | | | | | | | | | | | |
| (D) | 888 | 194 | | 110000 | 29000 | 14.00/24 | | | 6-5½x6 | 743 | 535 | 200-2100 | 4 | CDF | | ** | 14.71 | | | | | | | | | | | | | |
| Marmon-Herr | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (C) | R5-6 | 156 | | 22500 | *6850 | 7.50/20D | | 7.50/20 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | S | H | ** | 6.67 | | | | | | | | | | | | | |
| (C) | R6-6 | 180 | | 22500 | *7100 | 7.50/20D | | 7.50/20 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | S | H | ** | 6.67 | | | | | | | | | | | | | |
| (C) | R5-COE5 | 156 | 180 | 22500 | *7350 | 7.50/20D | | 7.50/20 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 4 | S | H | ** | 6.67 | | | | | | | | | | | | | |
| (C) | Q-5-6 | 160 | | 35000 | *3550 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 5 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| (C) | Q-6-6 | 184 | | 35000 | *3700 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 5 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| (C) | Q-5L-6 | 172 | | 35000 | *3850 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 5 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| (C) | Q-6L-6 | 203 | | 35000 | *3825 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 5 | H | H | ** | 6.80 | | | | | | | | | | | | | |
| Oshkosh | W712-6X6 | 178 | Opt | 47000 | 17300 | 11.00/20D | | 12.00/20 | 6-4⅜x5½ | 558 | 482 | 190-2600 | 10 | 2F | H | ** | 8.31 | | | | | | | | | | | | | |
| (D) | W1500CD | Opt | Opt | 47000 | 19300 | 11.00/20 | | 12.00/20 | 6-4⅜x6 | 672 | 500 | 150-1800 | 8 | 2F | H | ** | 8.31 | | | | | | | | | | | | | |
| (D) | W1802BDH | Opt | Opt | 95000 | ^23300 | 14.00/24D | | 14.00/24 | 6-5½x6½ | 844 | 600 | 180-1800 | 12 | 2F | H | ** | 13.9 | | | | | | | | | | | | | |
| | WA1600BG | Opt | Opt | 60000 | 22770 | 11.00/24D | | 12.00/24 | 6-5½x6 | 893 | 625 | 200-1800 | 12 | 2F | H | ** | 9.82 | | | | | | | | | | | | | |
| (D) | WA1600CD | Opt | Opt | 60000 | 23400 | 11.00/24D | | 12.00/24 | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | 2F | H | ** | 8.14 | | | | | | | | | | | | | |
| (D) | WA1600CDH | Opt | Opt | 60000 | ^24300 | 11.00/24D | | 12.00/24 | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | 2F | H | ** | 9.82 | | | | | | | | | | | | | |
| Peterbilt | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (D) | 350 | 193 | Opt | 42000 | | | 10.00/20D | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | WF | R | 6.00 | 8.5 | | | | | | | | | | | | | |
| (D) | 360 | 198 | Opt | 54000 | | | 10.00/20D | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | WF | R | 6.00 | 10.2 | | | | | | | | | | | | | |
| (D) | 370 | 198 | Opt | 58000 | | | 10.00/20D | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | WF | R | 6.00 | 10.2 | | | | | | | | | | | | | |
| (D) | 380 | 194 | Opt | 58000 | | | 10.00/20D | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | 2F | R | ** | 8.07 | | | | | | | | | | | | | |
| (D) | 390 | 197 | Opt | 79000 | | | 12.00/24 | 14.00/24 | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | 2F | R | ** | 8.07 | | | | | | | | | | | | | |
| Reo | E-226 | 150 | 203 | 40000 | | | 9.00/20 | 10.00/20 | 6-4⅛x4½ | 331 | 264 | 140-3200 | 5 | F2 | T | 6.49 | 7.66 | | | | | | | | | | | | | |
| | E-236 | 169 | 203 | 42000 | | | 10.00/20 | 11.00/20 | 6-4⅞x4½ | 427 | 343 | 151-2800 | 5 | SFd | T | ** | 7.5 | | | | | | | | | | | | | |
| Sterling | HBS130 | 164 | 183 | 32000 | 11000 | 8.25/20 | | 10.00/20 | 6-4⅛x4½ | 404 | 290 | 130-3000 | 5 | SF | L | 6.89 | 13.14 | | | | | | | | | | | | | |
| | HDS140 | 164 | 183 | 36000 | 11800 | 0.00/20 | | 10.00/20 | 6-4⅛x4⅜ | 434 | 290 | 130-3000 | 5 | 2F | L | 6.84 | 10.22 | | | | | | | | | | | | | |
| | HWS160 | 164 | 183 | 42000 | 12800 | 10.00/20 | | 11.00/22↓ | 6-4½x5½ | 517 | 368 | 125-2250 | 5 | WF | L | 5.49 | 8.50 | | | | | | | | | | | | | |
| | HWS235 | 182 | 193 | 52000 | 15700 | 11.00/20 | | 11.00/24 | 6-4⅞x6 | 779 | 585 | 186-2100 | 4 | WF | L | 5.67 | 8.20 | | | | | | | | | | | | | |
| (D) | HWS180H | 182 | 193 | 60000 | 14250 | 10.00/20 | | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 4 | WF | L | 4.71 | 6.17 | | | | | | | | | | | | | |
| | HWS235H | 182 | 193 | 52000 | 16000 | 11.00/20 | | 11.00/24 | 6-4⅞x6 | 672 | 500 | 150-1800 | 4 | WF | L | 5.65 | 8.20 | | | | | | | | | | | | | |
| | HCS195 | 170 | 189 | 48000 | 15300 | 10.00/20 | | 11.00/22 | 6-4⅞x5½ | 525 | 426 | 142-2200 | 15 | CD | R | 6.04 | 7.31 | | | | | | | | | | | | | |
| | HCS265 | 182 | 193 | 60000 | 17750 | 11.00/20 | | 12.00/24 | 6-5½x6 | 779 | 585 | 186-2100 | 12 | CD | R | 9.21 | 13.16 | | | | | | | | | | | | | |
| | HCS297 | 182 | 193 | 70000 | 20750 | 12.00/24↑ | | 13.00/24↑ | 6-5½x6 | 779 | 585 | 186-2100 | 12 | CD | R | 9.21 | 13.16 | | | | | | | | | | | | | |
| | HCS330 | 174 | 187 | 80000 | 23150 | 12.00/24 | | 14.00/24↑ | 6-5½x6 | 779 | 585 | 186-2100 | 12 | CD | R | 9.21 | 13.16 | | | | | | | | | | | | | |
| (D) | HCS195H | 182 | 193 | 48000 | 16000 | 10.00/20 | | 11.00/22 | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | CD | R | 6.04 | 7.31 | | | | | | | | | | | | | |
| (D) | HCS265H | 182 | 193 | 60000 | 18100 | 11.00/20 | | 12.00/24 | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | CD | R | 9.21 | 13.16 | | | | | | | | | | | | | |
| (D) | HCS297H | 182 | 193 | 70000 | 21050 | 12.00/24↑ | | 13.00/24↑ | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | CD | R | 9.21 | 13.16 | | | | | | | | | | | | | |
| (D) | HCS330H | 174 | 187 | 80000 | 23450 | 12.00/24 | | 14.00/24↑ | 6-4⅞x6 | 672 | 500 | 150-1800 | 12 | CD | R | 9.21 | 13.16 | | | | | | | | | | | | | |
| Truckstell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (C) | F4X26 | 144 | 209 | 26000 | ^7300 | 7.50/20 | | 8.25/20* | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 8 | SF | R | ** | 6.67 | | | | | | | | | | | | | |
| (C) | F4X27 (c.o.e.) | 126 | 185 | 27000 | ^7865 | 7.50/20 | | 8.25/20* | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 8 | SF | R | ** | 6.67 | | | | | | | | | | | | | |
| | F4X29 | 156 | 200 | 29000 | ^7850 | 7.50/20 | | 8.25/20-10 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 12 | HyF | R | ** | 7.2 | | | | | | | | | | | | | |
| | F4X30 | 126 | 185 | 30000 | ^8200 | 7.50/20 | | 8.25/20-10 | 8-3⅞x3¾ | 239 | 180 | 100-3800 | 12 | HyF | R | ** | 7.2 | | | | | | | | | | | | | |
| (C) | F4X29 | 156 | 200 | 29000 | ^7800 | 8.25/20 | | 9.00/20 | 6-3.5x4.4 | 254 | 212 | 110-3400 | 12 | Hy | R | ** | 7.2 | | | | | | | | | | | | | |
| (C) | F4X30 (c.o.e.) | 126 | 185 | 30000 | ^8200 | 8.25/20 | | 9.00/20 | 6-3.5x4.4 | 254 | 212 | 110-3400 | 12 | Hy | R | ** | 7.2 | | | | | | | | | | | | | |
| (C) | F4X34 | 156 | 228 | 34000 | ^10000 | 8.25/20 | | 9.00/20* | 8-3½x4⅛ | 337 | 255 | 145-3600 | 15 | HyF | R | ** | 6.8 | | | | | | | | | | | | | |
| (C) | F4X36 | 156 | 228 | 38000 | ^10650 | 9.00/20 | | 10.00/20* | 8-3½x4⅛ | 337 | 255 | 145-3600 | 15 | HyF | R | ** | 7.16 | | | | | | | | | | | | | |
| | F4X40 | 156 | 228 | 40000 | 11340 | 9.00/20 | | 10.00/20 | 8-3½x4⅛ | 337 | 255 | 145-3600 | 15 | d4 | R | ** | 8.67 | | | | | | | | | | | | | |
| (C) | C4X28 | 151 | 217 | 28000 | ^7500 | 7.50/20 | | 8.25/20* | 6-3½x3½ | 235 | 192 | 93-3100 | 8 | HyF | R | ** | 6.17 | | | | | | | | | | | | | |
| (C) | C4X29 (c.o.e.) | 125 | 192 | 29000 | ^7865 | 7.50/20 | | 8.25/20* | 6-3½x3½ | 235 | 192 | 93-3100 | 8 | HyF | R | ** | 6.17 | | | | | | | | | | | | | |
| | C4X29 | 151 | 217 | 29000 | ^8040 | 7.50/20 | | 9.00/20-10 | 6-3½x3½ | 235 | 192 | 93-3100 | 12 | HyF | R | ** | 6.17 | | | | | | | | | | | | | |
| | (c.o.e.) C4X30 | 125 | 192 | 30000 | ^8400 | 7.50/20 | | 9.00/20-10 | 6-3½x3½ | 235 | 192 | 93-3100 | 12 | HyF | R | ** | 6.17 | | | | | | | | | | | | | |
| Ward La Fr. | DIT | 180 | 220 | 39500 | | | 10.00/20 | 11.00/20 | 6-4½x4⅞ | 427 | 340 | 152-2600 | 15 | 2F | L | ** | 8.27 | | | | | | | | | | | | | |
| | D2KT^^ | 180 | 220 | 39500 | | | 10.00/20 | 11.00/20 | 6-4½x5½ | 525 | 425 | 168-2400 | 15 | 2F | L | ** | 7.53 | | | | | | | | | | | | | |
| | D2ZT^^ | 180 | 220 | 39500 | | | 10.00/20 | 11.00/20 | 6-4½x5½ | 554 | 458 | 184-2400 | 15 | 2F | L | ** | 7.50 | | | | | | | | | | | | | |
| | D3T^^ | 180 | 220 | 39500 | | | 10.00/20 | 11.00/20 | 6-4½x5½ | 572 | 440 | 198-2600 | 15 | 2F | L | ** | 7.53 | | | | | | | | | | | | | |
| | D3ST^^ | 180 | 220 | 39500 | | | 10.00/20 | 11.00/20 | 6-4½x5½ | 602 | 453 | 206-2600 | 15 | 2F | L | ** | 7.50 | | | | | | | | | | | | | |
| (D) | D5T^^ | 180 | 220 | 42000 | | | 11.00/20 | 11.00/20 | 6-4⅞x6 | 672 | 500 | 150-1800 | 15 | 2F | L | ** | 8.84 | | | | | | | | | | | | | |
| (D) | D5RT^^ | 180 | 220 | 42000 | | | 11.00/20 | 11.00/20 | 6-5½x6 | 743 | 540 | 165-1800 | 15 | 2F | L | ** | 8.84 | | | | | | | | | | | | | |
| (D) | D5NT^^ | 180 | 220 | 42000 | | | 11.00/20 | 11.00/20 | 6-5½x6 | 743 | 540 | 200-2100 | 15 | WF | L | ** | 8.17 | | | | | | | | | | | | | |
| White | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (D) | WC2864TD | 158 | 176 | 72000 | 14530 | 9.00/20 | | 11.00/22 | 6-5½x6 | 743 | 535 | 200-1800 | 10 | | | | 4.71 | 6.16 | | | | | | | | | | | | |

*(Concluded)*

# 1951 CITY AND

| Line Number | BUS MAKE AND MODEL | GENERAL: Passenger Rating | GENERAL: Type (City Service, Parlor, etc.) | GENERAL: Standard Wheelbase (In.) | GENERAL: Overall Length (In.)—Bumper to Bumper | GENERAL: Inside Length (In.)—Passenger Compartment | GENERAL: Tread (In.)—Front and Rear | GENERAL: Complete Vehicle Weight—Dry (Lb.) | GENERAL: Standard Tire Size (In.)—Front and Rear | ENGINE: Make and Model | ENGINE: Cycle and Fuel | ENGINE: Location | ENGINE: Number of Cylinders—Bore and Stroke (In.) | ENGINE: Displacement (Cu. In.) | ENGINE: Rated Horsepower (A.M.A.) | ENGINE: Maximum Brake Hp. at Governed R.P.M. | ENGINE: Maximum Net Torque (Lb. Ft.) at Specified R.P.M. | ENGINE: Compression Ratio—to 1 | ENGINE: Compression Pressure—(Lb.) at Specified R.P.M. | ENGINE: Valve Arrangement | Oiling System: Pressure to— |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ACF-Brill IC-41A | 37-41 | IC | 270 | 419½ | 408 | 80¼—71¼ | 20000 | 11.00/22 | HS 190-2 | 4-G | UF | 6-5¼x6 | 779 | 66.2 | 220-2200 | 625-1300 | 5.60 | | I | acdfg |
| 2 | C-27 | 27 | CS | 163 | 311 | 296 | 62¼—74 | 10600 | 8.25/20 | Int. RD-372 | 4-G | TR | 6-4⅝x4½ | 372 | 45.9 | 140-2850 | 282-1200 | 6.30 | | I | acdfg |
| 3 | C-31 | 31 | CS | 196 | 344 | 329 | 61⅜—74 | 11300 | 9.00/20 | Int. RD-406 | 4-G | TR | 6-4⅝x4½ | 406 | 45.9 | 148-2750 | 319-1200 | 6.30 | | I | acdfg |
| 4 | C-40 | 40 | CS | 212 | 389½ | 376 | 79⅛—71 | 14700 | 10.00/22 | HS 504 | 4-G | UF | 6-4⅝x5 | 504 | 51.4 | 170-2600 | 408-1600 | 6.00 | | I | acdfg |
| 5 | C-44 | 44 | CS | 249 | 420 | 407 | 80¼—71 | 17500 | 11.00/22 | HS 180-1 | 4-G | UF | 6-5x6 | 707 | 60.0 | 208-2200 | 540-1200 | 6.00 | | I | acdfg |
| 6 | C-44 | 45 | Sub | 249 | 420 | 407 | 80¼—71 | 18900 | 11.00/22 | HS 190-2 | 4-G | UF | 6-5¼x6 | 779 | 66.2 | 220-2200 | 625-1300 | 5.60 | | I | acdfg |
| 7 | C-48 | 48 | CS | 247 | 474 | 462 | 88⅛—74¼ | 19200 | 12.00/20 | HS 190-2 | 4-G | UF | 6-5¼x6 | 779 | 66.2 | 220-2200 | 625-1300 | 5.60 | | I | acdfg |
| 8 | Aerocoach 373 | 37 | IC | 229 | 407¾ | 389 | 80¾—72½ | 16800 | 10.00/20 | Cont U6501 | 4-G | TR | 6-4⅛x5½ | 501 | 48.6 | 170-2400 | 380-1200 | 6.14 | | I | abcdf |
| 9 | Beaver 27PT | 29 | CS | 150⅝ | 312 | 153 | 79—65½ | 11800 | 8.25/20 | Dodge Ind. 8 | 4-G | TR | 6-3⅞x4½ | 251 | 28.5 | | | | | I | abcd |
| 10 | 9-35PT | 37 | CS | 195⅝ | 372 | 192 | 81—71½ | 13500 | 9.00/20 | Int. RD450 | 4-G | TR | 6-4⅝x5 | 451 | 56.0 | 152-2600 | 358-1200 | 6.30 | 122-160 | I | abcd |
| 11 | Beck 29 | 29 | IC | 217½ | 402 | 288 | 80¼—69¾ | | 10.00/20 | Cum JBS600 | 4-D | R | 6-4½x5 | 401 | 40.8 | 150-2500 | 360-1400 | | | I | abcd |
| 12 | Mainliner | 33 | IC | 220 | 396 | 323 | 81¼—69¾ | | 10.00/20 | Int RED450 | 4-G | R | 6-4⅝x5 | 450 | 45.9 | 140-2400 | 350-1000 | 6.30 | | I | abcdfg |
| 13 | Mainliner Series II | 37 | IC | 220 | 420 | 350 | 80¼—71½ | | 11.00/20 | I-C R6586 | 4-G | R | 6-4½x5¾ | 586 | 55.6 | 150-2600 | 475-1000 | 6.00 | 120-150 | I | abcd |
| 14 | Luxury Liner | 37 | IC | 220 | 420 | 356 | 80¼—71½ | | 11.00/20 | Cum HRB600 | 4-D | R | 6-5½x6 | 743 | 63.1 | 1[illegible]-1800 | 540-1000 | 15.50 | | I | abcd |
| 15 | Cub 16-S | 16 | IC | 158 | 271 | 197 | 61¼—60¼ | 5960 | 7.00/18 | Ford 9H-J | 4-G | Fr | 6-3.3x4.4 | 226 | 26.4 | 95-3300 | 180-1200 | 6.80 | 110-80 | L | acd |
| 16 | 23-S | 23 | IC | 158 | 275 | 201 | 60¼—67 | 7420 | 7.50/18 | Ford 9NW | 4-G | Fr | 6-3.3x4.4 | 226 | 26.4 | 95-3300 | 180-1200 | 6.80 | 110-80 | L | acd |
| 17 | 19-T | 19 | CS | 158 | 271 | 197 | 61¼—60¼ | 5960 | 7.00/18 | Ford 9H-J | 4-G | Fr | 6-3.3x4.4 | 226 | 26.4 | 95-3300 | 180-1200 | 6.80 | 110-80 | L | acd |
| 18 | 25-T | 25 | CS | 158 | 275 | 201 | 60¼—67 | 7420 | 7.50/18 | Ford 9NW | 4-G | Fr | 6-3.3x4.4 | 226 | 26.4 | 95-3300 | 180-1200 | 6.80 | 110-80 | L | acd |
| 19 | Fitzjohn Cityliner | 33-35 | CS | 165¼ | 334 | 320 | 82¾—69¾ | 12000 | 10.00/20 | Her JXLD | 4-G | Fr | 6-4x4½ | 339 | 38.4 | 131-3000 | 272-1400 | 7.00 | | L | abcdg |
| 20 | Duraliner | 28 | IC | 185¼ | 321⅜ | 286 | 77⅜—65¼ | 12000 | 9.00/20 | Her JXLD | 4-G | Fr | 6-4x4½ | 339 | 38.4 | 131-3000 | 272-1400 | 7.00 | | L | abcdg |
| 21 | Flexible 218B1-S1 | 29 | IC | 218 | 395½ | 288 | 80¼—69¾ | 15175 | 9.00/20 | Bui. FB320 | 4-G | R | 6-3⅞x4⅞ | 320 | 37.8 | 144-3400 | 278-2200 | 6.30 | | I | acdf |
| 22 | 218B2-S1 | 23 | IC | 218 | 395½ | 288 | 80¼—69¾ | | 9.00/20 | Bui. FB320 | 4-G | R | 6-3⅞x4⅞ | 320 | 37.8 | 144-3400 | 278-2200 | 6.30 | | I | acdf |
| 23 | 218B6-S1 | 29 | IC | 218 | 395½ | 288 | 80¼—69¾ | | 9.00/20 | Bui. FB320 | 4-G | R | 6-3⅞x4⅞ | 320 | 37.8 | 144-3400 | 278-2200 | 6.30 | | I | acdf |
| 24 | 218B7-S1 | 37 | IC | 218 | 395½ | 329½ | 80¼—69¾ | 15100 | 9.00/20 | Bui. FB320 | 4-G | R | 6-3⅞x4⅞ | 320 | 37.8 | 144-3400 | 278-2200 | 6.30 | | I | acdf |
| 25 | 182B1-S1 | 25 | IC | 182 | 359½ | 252 | 80¼—69¾ | 14600 | 9.00/20 | Bui. FB320 | 4-G | R | 6-3⅞x4⅞ | 320 | 37.8 | 144-3400 | 278-2200 | 6.30 | | I | acdf |
| 26 | 218DWX1-S1 | 29 | IC | 218 | 395½ | 288 | 80¼—69¾ | 16250 | 9.00/20 | Her DWXLD | 4-D | R | 6-4½x5 | 426 | 43.3 | 142-2800 | 330-1700 | 15.0 | | I | abcd |
| 27 | 218DWX7-S1 | 37 | IC | 218 | 395½ | 329½ | 80¼—69¾ | | 9.00/20 | Her DWXLD | 4-D | R | 6-4½x5 | 426 | 43.3 | 142-2800 | 330-1700 | 15.0 | | I | abcd |
| 28 | GMC PDA3704 | 37 | IC | 239 | 420 | 366 | 80½—72½ | 16990 | 10.00/20 | Own 4-71 | 2-D | R | 4-4¼x5 | 284 | 28.9 | 147-2000 | 425-1350 | 17.1 | 500-1000 | I | abcdfgh |
| 29 | PD4103 | 41 | IC | 247 | 420 | 387 | 79⅛—70½ | 18400 | 11.00/20 | Own 6-71 | 2-D | TR | 6-4¼x5 | 426 | 43.3 | 200-2000 | 600-1200 | 17.1 | 500-1000 | I | abcdfgh |
| 30 | TGH2708 | 27 | CS | 151½ | 296⅜ | 258 | 81¼—75¼ | 9010 | 8.25/20 | Own 270 | 4-G | TR | 6-3¾x4 | 270 | 34.3 | 107-3200 | 207-1000 | 6.75 | 165-1000 | I | abcdf |
| 31 | TGH3101 | 31 | CS | 180½ | 325⅝ | 287 | 81¼—75¼ | 9355 | 8.25/20 | Own 270 | 4-G | TR | 6-3¾x4 | 270 | 34.3 | 107-3200 | 207-1000 | 6.75 | 165-1000 | I | abcdf |
| 32 | TDM3209 | 32 | CS | 182½ | 341¼ | 308 | 80¼—72½ | 14085 | 9.00/20 | Own 4-71 | 2-D | TR | 4-4¼x5 | 284 | 28.9 | 133-2000 | 400-1200 | 17.1 | 500-1000 | I | abcdfgh |
| 33 | TDM3612 | 36 | CS | 210½ | 369¼ | 337 | 80¼—72½ | 14805 | 9.00/20 | Own 4-71 | 2-D | TR | 4-4¼x5 | 284 | 28.9 | 133-2000 | 400-1200 | 17.1 | 500-1000 | I | abcdfgh |
| 34 | TDM4010 | 40 | CS | 238¾ | 396 | 366 | 79⅞—72½ | 16020 | 10.00/20 | Own 6-71 | 2-D | TR | 6-4¼x5 | 426 | 43.3 | 170-2000 | 545-1000 | 17.1 | 500-1000 | I | abcdfgh |
| 35 | TDM4509 | 45 | CS | 238¾ | 420 | 390 | 79⅞—70½ | 16520 | 10.00/20 | Own 6-71 | 2-D | TR | 6-4¼x5 | 426 | 43.3 | 170-2000 | 545-1000 | 17.1 | 500-1000 | I | abcdfgh |
| 36 | TDH3209 | 32 | CS | 182½ | 341¼ | 308 | 80¼—72½ | 13940 | 9.00/20 | Own 4-71 | 2-D | TR | 4-4¼x5 | 284 | 28.9 | 133-2000 | 400-1200 | 17.1 | 500-1000 | I | abcdfgh |
| 37 | TDH3612 | 36 | CS | 210½ | 369¼ | 337 | 80¼—72½ | 14470 | 9.00/20 | Own 4-71 | 2-D | TR | 4-4¼x5 | 284 | 28.9 | 133-2000 | 400-1200 | 17.1 | 500-1000 | I | abcdfgh |
| 38 | TDH4010 | 40 | CS | 238¾ | 396 | 366 | 79⅞—72½ | 15855 | 10.00/20 | Own 6-71 | 2-D | TR | 6-4¼x5 | 426 | 43.3 | 170-2000 | 545-1000 | 17.1 | 500-1000 | I | abcdfgh |
| 39 | TDH4509 | 45 | CS | 238¾ | 420 | 390 | 79⅞—70½ | 16350 | 10.00/20 | Own 6-71 | 2-D | TR | 6-4¼x5 | 426 | 43.3 | 170-2000 | 545-1000 | 17.1 | 500-1000 | I | abcdfgh |
| 40 | TDH4511 | 45 | CS | 238¾ | 420 | 390 | 85⅞—70½ | 17020 | 11.00/20 | Own 6-71 | 2-D | TR | 6-4¼x5 | 426 | 43.3 | 170-2000 | 545-1000 | 17.1 | 500-1000 | I | abcdfgh |
| 41 | TDH5103 | 51 | CS | 281¾ | 477 | 441 | 87⅞—76½ | 18240 | 11.00/20 | Own 6-71 | 2-D | TR | 6-4¼x5 | 426 | 43.3 | 200-2000 | 600-1200 | 17.1 | 500-1000 | I | abcdfgh |
| 42 | Kalamazoo " | 29 | IC | 194 | 316 | | 70—66 | | 8.25/20 | Int K-7 | 4-G | Fr | 6-3⅞x4½ | 269 | 30.4 | 101-3000 | 222-1600 | 6.30 | | I | abcdf |
| 43 | " 21-27 | CIC | | 180 | 281 | | 70—66 | | 7.50/20 | Int K-7 | 4-G | Fr | 6-3⅞x4½ | 269 | 30.4 | 101-3000 | 222-1600 | 6.30 | | I | abcdf |
| 44 | Mack C33 | 33 | CS | 180 | 344 | 313 | 79⅞—71⅞ | 15830 | 10.00/20 | Own EN510A | 4-G | TR | 6-4⅞x5½ | 510 | 47.2 | 158-2400 | 368-1000 | 8.07 | 135-1000 | I | acdeh |
| 45 | C37 | 37 | CS | 213⅜ | 377¾ | 346⅜ | 79⅞—71⅞ | 16370 | 10.00/20 | Own EN510A | 4-G | TR | 6-4⅞x5½ | 510 | 47.2 | 158-2400 | 368-1000 | 8.07 | 135-1000 | I | acdeh |
| 46 | C41—Diesel | 41 | CS | 237⅛ | 396 | 366⅜ | 80⅛—71⅛ | 18815 | 11.00/22 | Own END672 | 4-D | TR | 6-4⅞x6 | 672 | 57.0 | 165-2000 | 445-1200 | 14.6 | 450-1000 | I | acdeh |
| 47 | C45—Diesel | 45 | CS | 261⅛ | 420 | 390⅝ | 80⅛—71⅛ | 19225 | 11.00/22 | Own END672 | 4-D | TR | 6-4⅞x6 | 672 | 57.0 | 165-2000 | 445-1200 | 14.6 | 450-1000 | I | acdeh |
| 48 | C37—Diesel | 37 | CS | 213⅜ | 380⅝ | 346⅜ | 79⅞—71⅛ | 16955 | 10.00/20 | Own END672 | 4-D | TR | 6-4⅞x6 | 672 | 57.0 | 145-2150 | 370-1200 | 14.6 | 450-1000 | I | acdeh |
| 49 | C50 | 49 | CS | 272 | 479 | 443 | 82⅝—71⅛ | 21765 | 11.00/22 | Own END672 | 4-D | TR | 6-4⅞x6 | 672 | 57.0 | 200-2000 | 584-1400 | 13.2 | 440-1000 | I | acdeh |
| 50 | Marmon-Herrington 8M8 | 27 | CS | 146 | 312 | | 80⅞—65⅞ | 9800 | 8.25/20 | Ford 254 | 4-G | TR | 6-3⅞x4.4 | 254 | 29.4 | 104-3000 | 212-1200 | 6.85 | | L | acd |
| 51 | 8M2B | 31 | CS | 182 | 349 | | | 10000 | 8.25/20 | Ford 254 | 4-G | TR | 6-3⅞x4.4 | 254 | 29.4 | 104-3000 | 212-1200 | 6.85 | | L | acd |
| 52 | Reo 37-TB | 37-40 | CS | 186 | 373⅛ | 333½ | 80—69⅞ | 14000 | 10.00/20 | Wau 140GKB | 4-G | UF | 6-4½x5½ | 525 | 55.0 | 176-2600 | 425-1200 | 6.40 | 110-150 | I | acdfgh |
| 53 | 37-CB | 37-40 | CS | 186 | 373⅛ | 333½ | 80—69⅞ | 14000 | 10.00/20 | Wau 140GKB | 4-G | UF | 6-4½x5½ | 525 | 55.0 | 176-2600 | 425-1200 | 6.40 | 110-150 | I | acdfgh |
| 54 | Southern Coach F-31 | 32 | CS | 175 | 321 | 305 | 80¼—71½ | 12800 | 9.00/20 | Wau 6MZA | 4-G | UF | 6-4¼x4¾ | 404 | 43.4 | 115-2200 | 305-1300 | 5.90 | | L | abcdegh |
| 55 | F-35 | 36 | CS | 196 | 356½ | 340 | 80¼—71½ | 13500 | 10.00/20 | Wau 6MZA | 4-G | UF | 6-4¼x4¾ | 404 | 43.4 | 115-2200 | 305-1300 | 5.90 | | L | abcdegh |
| 56 | S-36 | 36 | CS | 196 | 356½ | 340 | 80¼—71½ | 15000 | 10.00/20 | Wau 140GKB | 4-G | UF | 6-4½x5½ | 525 | 48.6 | 170-2400 | 435-1800 | 6.40 | | L | abcdgh |
| 57 | S-41 | 41 | CS | 222½ | 391½ | 375 | 80¼—71½ | 15850 | 11.00/20 | Wau 140GKG | 4-G | UF | 6-4½x5½ | 525 | 48.6 | 170-2400 | 435-1800 | 6.40 | | L | abcdgh |
| 58 | Transit O1 | 31 | CS | 179 | 354⅜ | 301 | 81—73 | 12500 | 9.00/20 | Cont B5427 | 4-G | TR | 6-4⅛x4⅞ | 427 | 44.7 | 127-2800 | 325-1200 | 6.43 | | L | abcdg |
| 59 | Twin Coach 34-S | 34 | CS | 189 | 350½ | 300 | 80—73¼ | 13000 | 10.00/20** | Own FTC180 | 4-G | UF | 6-4¼x4⅝ | 404 | 43.4 | 180-2800 | 380-1600 | 7.50 | 165-120 | I | abc |
| 60 | 38-S | 37 | CS | 189 | 373 | 322½ | 80—73¼ | 13550 | 10.00/20** | Own FTC180 | 4-G | UF | 6-4¼x4⅝ | 404 | 43.4 | 180-2800 | 380-1600 | 7.50 | 165-120 | I | abc |
| 61 | 41-S | 41 | CS | 228 | 389½ | 345½ | 80½—73¼ | 14400 | 11.00/20** | Own FTC180 | 4-G | UF | 6-4¼x4⅝ | 404 | 43.4 | 180-2800 | 380-1600 | 7.50 | 165-120 | I | abc |
| 62 | 45S | 45 | CS | 228 | 419½ | 367½ | 80½—73¼ | 15000 | 11.00/20** | Own FTC180 | 4-G | UF | 6-4¼x4⅝ | 404 | 43.4 | 180-2800 | 380-1600 | 7.50 | 165-120 | I | abc |
| 63 | 58D | 58 | CS | 279 | 564 | 513½ | 80½—73¼ | 21600 | 10.00/20 | Own FTC180 | 4-G | UF | 6-4¼x4⅝ | 404 | 43.4 | 180-2800 | 380-1600 | 7.50 | 165-120 | I | acf |
| 64 | 52S | 50 | CS | 240 | 479½ | 428 | 80½—73¼ | 16500 | 11.00/20** | Own FTC200 | 4-G | UF | 6-4⅝x5 | 451 | 46.0 | 200-2800 | 442-1600 | 7.50 | 165-120 | I | abcd |
| 65 | White 1136 & 1136-S | 36-37 | CSS | 181 | 300¼ | | 82½—71¾ | 16135 | 10.00/20 | Own 280TA | 4-G | UF | 6-4⅝x5 | 504 | 51.3 | 175-2800 | 410-1400 | 6.50 | | L | abcdh |
| 66 | 1140 & 1140-S | 40-41 | CSS | 214 | 365½ | | 82½—71¾ | 16655 | 11.00/20 | Own 280TA | 4-G | UF | 6-4⅝x5 | 504 | 51.3 | 175-2800 | 410-1400 | 6.50 | | L | abcdh |
| 67 | 1144 & 1144-S | 44 | CSS | 238 | 419½ | | 82½—71¾ | 17300 | 11.00/20 | Own 24A | 4-G | UF | 12-4½x4¼ | 681 | 81.7 | 210-2800 | 500-1400 | 6.10 | | L | abcdh |
| 68 | 1150D | 50 | CS | 269 | 469 | | 89½—77¾ | 19500 | 12.00/20 | Cum NHHB | 4-D | UF | 6-5½x6 | 743 | 63.0 | 200-2100 | 540-1300 | 15.5 | | I | abcd |

**ABBREVIATIONS**

**—Torque converter.
*—Hundred rpm.
■—Each engine.
‡—Two used.
‡—City, 44; suburban, 42 or 45.
**—9.00/20 rear.
†—Front, 147½; rear, 15.
¶—Front, 15; rear, 161½.
^—Front to center wheels, 189; center to rear wheels, 195.

a—Main bearings.
b—Wrist pins.
c—Connecting rods.
d—Camshaft.
e—Accessory drive.
f—Valve lifters or rocker arms and shafts.
g—Timing gears or chain.
h—Air compressor.
A—Air.
AL—Electric Autolite Co.
BB—Borg & Beck.
Ben—Bendix Products.
BL—Brown-Lipe Div.
Bos—American Bosch Corp.
Bui—Buick Motor Div.
Car—Carter Carburetor Corp.
Ce—Centrifugal.
CIC—City and intercity service.
Cle—Clark Equipment Co.
Cont—Continental Motors Corp.
CS—City service.
CSS—City and suburban service.
Cum—Cummins Engine Co.
D—Diesel fuel.
DD—Dual downdraft.
Do—Downdraft.
DR—Delco-Remy Div.
Ds—Drive shaft.
Fo—Ford Motor Co.
Fr—Front.
Fu—Fuller Mfg. Co.
G—Gasoline.
Gem—Gemmer Mfg. Co.

*For Directory of the Manufacturers listed above, see page 190.*

# INTERCITY BUSES



| FUEL SYSTEM | | | | ELECTRICAL SYSTEM | | | Gov-ernor | | | TRANSMISSION | | | | | Uni-versals | REAR AXLE | | | BRAKES | | | | SPRINGS | | | | RUNNING GEAR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Battery | | | | | | | | | | | | | Service | | Hand | Front | | Rear | | | | | | |
| Make and Type | Carburetor or Injector Pump Size (In.) | Tank Capacity (Gal.) | Ignition System—Make | Generator and Starter—Make | Voltage and Amp. Hours Capacity | Type | Max. Governed Speed—M.P.H. | Clutch—Make and Size (In. diam.) | Make | No. of Forward Speeds | Low Speed Ratio—to 1 | Type | Number | Size of Series | Make and Model | Standard Gear Ratio—to 1 | Type of Applicator | Total Lining Area (Sq. In.) | Drum Diam. (In.) | Operates on— | Total Lining Area (Sq. In.) | No. of Leaves | Length and Width (In.) | No. of Leaves | Length and Width (In.) | Front Axle—Make | Steering Gear—Make | Outside Diameter of Min. Turn. Circle (Ft.) | Line Number |
| Zen | Up 2 | 30 | DR | DR | 12-165 | Ce | 61 | Lg 17 | Spi | 4 | 4.36 | M | 2 | 1730 | Tim R-112-W | 4.11 | A | 893 | 16½ | Ds | 127 | 12 | 64-4 | 13 | 70-6 | Tim | Ro | 84 | 1 |
| Hol | Do 1⅛ | 65 | DR | LD | 12-160 | Va | 48 | Lg 4 | Cla | 3 | 4.06 | M | 2 | 1530 | Tim 56434W | 6.17 | A | 533 | 14½ | Ds | 85 | 11 | 60-3 | 12 | 64-3 | Cla | Ro | 64 | 2 |
| Hol | Do 1⅛ | 65 | DR | LD | 12-160 | Va | 50 | Lg 4 | Cla | 3 | 4.06 | M | 2 | 1500 | Tim 56434W | 6.17 | A | 533 | 14½ | Ds | 85 | 12 | 60-3 | 12 | 64-3 | Cla | Ro | 72 | 3 |
| Zen | Up 2 | 95 | DR | LD | 12-160 | | 52 | | Spi•• If | | | H | 2 | 1800 | Tim L-100 | 5.17 | A | 893 | 16½ | Ds | 101 | 12 | 62-4 | 13 | 68-4 | Tim | Ro | 76 | 4 |
| Zen | Up 2 | 107 | DR | LD | 12-160 | | 54 | | Spi•• If | | | H | 2 | 1700 | Tim 59070W | 5.14 | A | 830 | 16½ | Ds | 127 | 6 | 68-4 | 6 | 76-4 | Tim | Ro | 85 | 5 |
| Zen | Up 2 | 107 | DR | LD | 12-160 | Ce | 68 | Lg 17 | Spi | 4 | 4.36 | M | 2 | 1700 | Tim 59070W | 4.11 | A | 830 | 16½ | Ds | 127 | 6 | 68-4 | 6 | 76-4 | Tim | Ro | 85 | 6 |
| Zen | Up 2 | 120 | DR | DR | 12-160 | | 68 | | Spi•• If | | | H | 2 | 1700 | Tim R-110-DPA | 5.87 | A | 848 | 15 | Ds | 127 | 12 | 62-4 | 14 | 68-5 | Tim | Ro | 71 | 7 |
| Zen | Do 1⅝ | 100 | DR | DR | 12-165 | Su | 65 | Lg 15 | Cla | 4 | 4.44 | M | 2 | 1600 | Tim 58434 | 4.11 | A | 760 | 16½ | Ds | 115 | 10 | 51-4 | 11 | 61½-4 | Tim | Ro | 64 | 8 |
| Car | Up | 65 | AL | AL | 12-158 | Su | 56 | TD 12 | Dge | 4 | | M | 2 | 1400 | Tim 54440 | 5.71 | M | | 14½ | Ds | | 14 | 60-3 | 16 | 63-3 | Tim | Ro | 55 | 9 |
| Hol | Do | 80 | DR | DR | 12-158 | Ce | 55 | Roc 14 | Spi | 3 | 3.80 | M | 2 | 1500 | Tim L110 | 5.28 | A | 614 | 15 | Ds | 45 | 10 | 60-3 | 16 | 63-3 | Tim | Ro | 65 | 10 |
| Cum | | 82 | DR | LD | 12-110 | M | 55 | Lg 14 | Fu | 5 | 6.96 | M | 2 | 1500 | Tim L-110 | 5.28 | A | | 16½ | Ds | | | 54-3 | | 59-3 | Tim | Ro | 90 | 11 |
| Hol | DD | 100 | DR | DR | 12- | Su | 54 | Roc 14 | Fu | 5 | 6.52 | M | 2 | 1500 | Tim 56410-PA | 5.28 | A | 598 | 17½ | Ds | 88 | 14 | 52-3 | 16 | 59-3 | Tim | Ro | 72 | 12 |
| Hol | Do 2 | 92 | DR | LD | 12-120 | Su | 74 | LR 15 | Fu | 5 | 8.08 | M | 2 | 1800 | Tim L110 | 5.28 | A | 696 | * | Ds | 16 | 16 | 54-3 | 17 | 64-3 | Tim | Ro | 80 | 13 |
| Cum | | 90 | | LN | 12-110 | | 68 | LR 17 | Fu | 5 | 6.37 | M | 2 | 1600 | TimQ-110-DPA | 4.62 | A | | 15 | Ds | | | 54-4 | | 70-4 | Tim | Ro | 90 | 14 |
| Hol | Up | 30 | Fo | Fo | 6-135 | Op | 68 | Lg 11 | W | 3 | 3.71 | M | 3 | | Tim F5COE | 5.14 | H | 302 | 15 | Ds | 40 | 13 | 38-2¼ | 12 | 45-2½ | Tim | Gem | 61.6 | 15 |
| Hol | Up | 30 | Fo | Fo | 6-135 | Op | 57 | L-F 11 | W | 3 | 3.71 | M | 3 | | Tim F5 | 5.14 | H | 302 | 15 | Ds | 61½ | 13 | 36-2 | 12 | 52-2½ | Tim | Ro | 61.6 | 16 |
| Hol | Up | 30 | Fo | Fo | 6-135 | Op | 68 | Lg 11 | W | 3 | 3.71 | M | 3 | | Tim F5COE | 5.14 | H | 302 | 15 | Ds | 40 | 13 | 38-2¼ | 12 | 45-2½ | Tim | Gem | 61.6 | 17 |
| Hol | Up | 30 | Fo | Fo | 6-135 | Op | 57 | Lg 11 | W | 3 | 3.71 | M | 3 | | Tim F5 | 5.14 | H | 302 | 15 | Ds | 61½ | 13 | 38-2 | 12 | 52-2½ | Tim | Ro | 64.6 | 18 |
| Zen | Up 1⅝ | 66 | DR | DR | 12-160 | Ce | 55 | LR 13 | Cla | 3 | 3.90 | M | 4 | 1400 | Tim | 5.57 | A | 594 | 16½ | Ds | 88 | 12 | 54-3 | 12 | 60-3 | Tim | Ro | 59 | 19 |
| Zen | Up 1⅝ | 73 | DR | DR | 12-160 | Ce | 65 | LR 13 | Cla | 4 | 5.60 | M | 3 | 1400 | Tim | 7.85 | A | 796 | 14½ | Ds | 88 | 11 | 50-3 | 13 | 63½-3 | Tim | Ro | 65½ | 20 |
| Str | Do | 80 | DR | DR | 12-155 | Ce | 63 | Spi 13 | Spi | 5 | 6.93 | M | 2 | 1500 | Tim f H110 | 5.17 | A | 578 | 15 | Ds | 45 | 12 | 52-3 | 15 | 58-3 | Tim | Ro | 72 | 21 |
| Str | Do | 80 | DR | DR | 12-155 | Ce | 63 | Spi 13 | Spi | 5 | 6.93 | M | 2 | 1500 | Tim H110 | 6.17 | A | 578 | 15 | Ds | 45 | 12 | 52-3 | 15 | 58-3 | Tim | Ro | 72 | 22 |
| Str | Do | 80 | DR | DR | 12-155 | Ce | 63 | Spi 13 | Spi | 5 | 6.93 | M | 2 | 1500 | Tim H110 | 6.17 | A | 578 | 15 | Ds | 45 | 12 | 52-3 | 15 | 58-3 | Tim | Ro | 72 | 24 |
| Str | Do | 80 | DR | DR | 12-155 | Ce | 63 | Spi 13 | Spi | 5 | 6.93 | M | 2 | 1500 | Tim H110 | 6.17 | A | 578 | 15 | Ds | 45 | 12 | 52-3 | 15 | 58-3 | Tim | Ro | 72 | 21 |
| Str | Do | 80 | DR | DR | 12-155 | Ce | 63 | Spi 13 | Spi | 5 | 6.93 | M | 2 | 1500 | Tim H110 | 6.17 | A | 578 | 15 | Ds | 45 | 12 | 52-3 | 15 | 58-3 | Tim | Ro | 72 | 25 |
| Bos | | 80 | | DR | 12-155 | Ce | 60 | Spi 13 | Spi | 5 | 6.93 | M | 2 | 1500 | Tim H110 | 4.62 | A | 578 | 15 | Ds | 45 | 12 | 52-3 | 15 | 58-3 | Tim | Ro | 72 | 26 |
| Bos | | 80 | | DR | 12-155 | Ce | 60 | Spi 13 | Spi | 5 | 6.93 | M | 2 | 1500 | Tim H110 | 4.62 | A | 578 | 15 | Ds | 45 | 12 | 52-3 | 15 | 58-3 | Tim | Ro | 72 | 27 |
| Own | | 100 | | DR | 12-155A | Ce | 57 | Lg 15½ | Cla | 4 | 4.88 | M | 2 | 1600 | Tim 58352WX4 | 4.11 | A | 645 | 14½ | Ds | 136 | 11 | 53-4 | 12 | 67-4 | Tim | Ro | 86 | 28 |
| Own | | 100 | | DR | 12-155A | Ce | 67 | Lg 17 | Spi | 4 | 3.86 | M | 2 | 1700 | Tim 59039WX2 | 3.55 | A | 705 | 14½ | Ds | 125½ | 12 | 58-4 | 14 | 72-4 | Tim | Ro | 84 | 29 |
| Zen | Do 1⅛ | 60 | DR | DR | 12-155 | Ce | 52 | | GH | 4 | 3.62 | H | 2 | 1400 | Cla R-1203 | 6.33 | A | 436 | 14½ | Ds | 28 | 10 | 58-3 | 11 | 59-3 | Cla | Sag | 80 | 30 |
| Zen | Do 1⅛ | 60 | DR | DR | 12-155 | Ce | 52 | | GH | 4 | 3.62 | H | 2 | 1400 | Cla R-1203 | 6.33 | A | 620 | 14½ | Ds | 28 | 11 | 52-3 | 11 | 59-3 | Cla | Sag | 65 | 31 |
| Own | | 85 | | DR | 12-117A | Ce | 59 | Lg 17 | Spi | 4 | 4.36 | M | 2 | 1800 | Tim 57452WX4 | 3.87 | A | 646 | 14½ | Ds | 69 | 9 | 63½-4 | 12 | 62-4 | Tim | Sag | 55½ | 32 |
| Own | | 85 | | DR | 12-126A | Ce | 59 | Lg 17 | Spi | 4 | 4.36 | M | 2 | 1800 | Tim 57452WX4 | 3.87 | A | 646 | 14½ | Ds | 69 | 9 | 63½-4 | 12 | 62-4 | Tim | Sag | 73 | 33 |
| Own | | 85 | | DR | 12-117A | Ce | 61 | Lg 17 | Spi | 4 | 4.36 | M | 2 | 1700 | Tim 58460WX1 | 3.87 | A | 764 | 14½ | Ds | 104 | 10 | 60½-4 | 13 | 62-4 | Tim | Sag | 93 | 34 |
| Own | | 85 | | DR | 12-117A | Ce | 61 | Lg 17 | Spi | 4 | 4.36 | M | 2 | 1700 | Tim 58464WX1 | 3.87 | A | 764 | 14½ | Ds | 104 | 10 | 60½-4 | 14 | 64½-4 | Tim | Sag | 80 | 35 |
| Own | | 85 | | DR | 12-117A | Ce | 47 | Own 15 | GM•• | If | | H | 2 | 1800 | Tim 57460WX1 | 4.71 | A | 646 | 14½ | Ds | 69 | 9 | 60½-4 | 12 | 62-4 | Tim | Sag | 65½ | 36 |
| Own | | 85 | | DR | 12-117A | Ce | 47 | Own 15 | GM•• | If | | H | 2 | 1600 | Tim 57460WX1 | 4.71 | A | 646 | 14½ | Ds | 69 | 9 | 60½-4 | 12 | 62-4 | Tim | Sag | 73 | 37 |
| Own | | 85 | | DR | 12-117A | Ce | 48 | Own 15 | GM•• | If | | H | 2 | 1700 | Tim 58470WX1 | 4.71 | A | 764 | 14½ | Ds | 104 | 10 | 60½-4 | 13 | 62-4 | Tim | Sag | 80 | 38 |
| Own | | 85 | | DR | 12-117A | Ce | 48 | Own 15 | GM•• | If | | H | 2 | 1700 | Tim 58473WX1 | 4.71 | A | 764 | 14½ | Ds | 104 | 10 | 60½-4 | 14 | 64½-4 | Tim | Sag | 83 | 39 |
| Own | | 85 | | DR | 12-117A | Ce | 49 | Own 15 | GM•• | If | | H | 2 | 1700 | | 4.71 | A | 764 | 14½ | Ds | 104 | 12 | 60½-4 | 15 | 64½-4 | Tim | Sag | 72 | 40 |
| Own | | 85 | | DR | 12-117A | Ce | 45 | Own 15 | GM•• | If | | H | 2 | 1700 | Tim 59146 | 5.16 | A | 874 | 14½ | Ds | 104 | 13 | 60½-4 | 14 | 64½-5 | Tim | Sag | 77 | 41 |
| Hol | Do | 31 | AL | AL | 6-205 | | 58 | Int 10⅞ | Int | 5 | 6.52 | M | 3 | | Int R1560 | 5.62 | H | 421 | | Ds | 75 | | 45-2¼ | | 54-3 | Int | Ro | 59 | 42 |
| Hol | Do | 31 | AL | AL | 6-205 | | 57 | Int 10⅞ | Int | 5 | 6.52 | M | 3 | | Int R1560 | 5.62 | H | 421 | ↑ | Ds | 75 | 9 | 45-2¼ | 11 | 54-3 | | Ro | 59 | 43 |
| Zen | Up 1⅝ | 75 | DR | DR | 12-158 | Ce | 24• | Spi 14 | Spi•• | If | | H | 2 | 1600 | Own RA1061 | Var | A | 740 | 15 | Ds | 61 | 11 | 62-3½ | 15 | 62-4 | Own | Gem | 55 | 44 |
| Zen | Up 1⅝ | 75 | DR | DR | 12-158 | Ce | 24• | Spi 14 | Spi•• | If | | H | 2 | 1600 | Own RA1061 | Var | A | 740 | 15 | Ds | 61 | 11 | 62-3½ | 15 | 62-4 | Own | Gem | 64 | 45 |
| Bos | B | 100 | | DR | 12-200 | H | 20• | Spi 16 | Spi•• | If | | H | 2 | 1700 | Own RA1031 | Var | A | 884 | 16½ | Ds | 122 | 11 | 70-4 | 15 | 62-4 | Own | Gem | 75 | 46 |
| Bos | B | 100 | | DR | 12-200 | H | 20• | Spi 16 | Spi•• | If | | H | 2 | 1700 | Own RA1031 | Var | A | 884 | 16½ | Ds | 122 | 11 | 70-4 | 15 | 62-4 | Own | Gem | 80 | 47 |
| Bos | B | 75 | | DR | 12-200 | H | 21• | Spi 14 | Spi•• | If | | H | 2 | 1600 | Own RA1061 | Var | A | 740 | 15 | Ds | 61 | 11 | 62-3½ | 15 | 62-4 | Own | Gem | 64 | 48 |
| Bos | | 85 | | DR | 12-200 | H | 41 | Spi 16 | Spi•• | If | | H | 2 | 1700 | Own RA5502 | 4.88 | A | 1088 | 16½ | Ds | 139 | 12 | 62-4 | 15 | 62-4 | Own | Ben | 85 | 49 |
| Hol | Do | 60 | Fo | Fo | 12-158 | Su | 45 | 12 | Spi | 3 | 3.54 | M | | | Tim | 6.67 | A | 448 | 14½ | Ds | 83 | | 54-3 | | 58-3 | Tim | | | 50 |
| Hol | Do | 60 | Fo | Fo | 12-158 | Su | 45 | 12 | Spi | 3 | 3.54 | M | | | Tim | 6.67 | A | 448 | 14½ | Ds | 83 | | 54-3 | | 58-3 | Tim | | | 51 |
| Zen | DD 1⅝ | 60 | DR | DR | 12-160 | Su | 57 | BB 14 | Spi | 3 | 3.80 | M | 2 | 1600 | Tim L110 | 6.16 | A | 796 | 16½ | Ds | 102 | 9 | 62-4 | 9 | 64-4 | Tim | Ro | 84 | 52 |
| Zen | DD 1⅝ | 60 | DR | DR | 12-160 | | 57 | Spi 14 | Spi•• | If | | H | 2 | 1600 | Tim L110 | 6.16 | A | 796 | 16½ | Ds | 102 | 9 | 62-4 | 9 | 64-4 | Tim | Ro | 84 | 53 |
| Zen | Do 1⅝ | 72 | Op | Op | 12-Op | Ce | 50 | BL 14 | Spi | 3 | 3.80 | M | 2 | 1600 | Tim H110DPA | 5.28 | A | 576 | 15 | Ds | 96 | 8 | 62-3½ | 10 | 70-4 | Tim | Ro | 84 | 54 |
| Zen | Do 1⅝ | 92 | Op | Op | 12-Op | Ce | 50 | BL 14 | Spi | 3 | 3.80 | M | 2 | 1600 | Tim L100DPA | 6.16 | A | 631 | 15 | Ds | 96 | 10 | 62-3½ | 12 | 70-4 | Tim | Ro | 68 | 55 |
| Zen | Do 1⅝ | 92 | Op | Op | 12-Op | Ce | 50 | BL 13 | Spi | 4 | 4.67 | M | 2 | 1600 | Tim L110DPA | 6.16 | A | 651 | 15 | Ds | 96 | 11 | 62-3½ | 12 | 70-4 | Tim | Ro | 65 | 56 |
| Zen | Do 1⅝ | 110 | Op | Op | 12-Op | Ce | 50 | | Spi•• | If | | H | 2 | 1600 | TimQ-110-DPA | 6.17 | A | 651 | 15 | Ds | 101 | 12 | 62-3½ | 14 | 70-4 | Tim | Ro | 74 | 57 |
| Str | Do 1⅛ | 91.5 | DR | DR | 12-160 | Su | 51 | Lg | Cla | 3 | 4.06 | M | 2 | 1600 | Cla R1253 | 5.57 | A | 500 | 14½ | Ds | 65½ | 9 | 58-3 | 10 | 58-3 | Cla | Ro | 80 | 58 |
| Hol | Do | 80 | DR | LD | 12-170 | Va | 48 | None | Spi•• | If | 5.40 | H | 2 | 1606 | Tim J151 | 5.83 | A | 762 | 14½ | Ds | 65½ | Toralastic | | Toralastic | Tim | Gem | 70½ | 59 |
| Hol | Do | 80 | DR | LD | 12-170 | Va | 48 | None | Spi•• | If | 5.40 | H | 2 | 1606 | Tim J151 | 5.83 | A | 762 | 14½ | Ds | 65½ | Toralastic | | Toralastic | Tim | Gem | 70½ | 60 |
| Hol | Do | 80 | DR | LD | 12-170 | Va | 48 | None | Spi•• | If | 5.40 | H | 2 | 1606 | Tim 58268 | 6.16 | A | 762 | 16½ | Ds | 65½ | Toralastic | | Toralastic | Tim | Gem | 77½ | 61 |
| Hol | Do | 125 | DR | LD | 12-170 | Va | 48 | None | Spi•• | If | 5.40 | H | 2 | 1606 | Tim 58269C3 | 6.16 | A | 762 | 14½ | Ds | 65½ | Toralastic | | Toralastic | Tim | Gem | 73½ | 62 |
| Hol | Do | 125 | DR | LD | 12-170 | Va | 58 | None | Spi•• | If | 5.40 | H | 4 | 1606 | Tim J152 | 4.86 | A | 762 | 16½ | Ds | 65½ | Toralastic | | Toralastic | Tim | Gem | 82.5 | 63 |
| Hol | Do | 125 | DR | DR | 12-170 | Va | 41 | | Spi•• | | 5.40 | H | 2 | 1606 | Tim 58269 | 6.83 | A | 845 | 16½ | Ds | 65½ | Toralastic | | Toralastic | Tim | Gem | 87.6 | 64 |
| Zen | He 1½ | 105 | DR | LD | 12-159 | HM | 57 | None | Own | 2 | 1.98 | H | 2 | 1700 | Own 88C | 5.57 | A | 818 | 15 | Ds | 123 | 11 | 68-4 | 12 | 72-4 | Own | Ro | 33½ | 65 |
| Zen | He 1½ | 130 | DR | LD | 12-158 | HM | 58 | None | Own | 2 | 1.98 | H | 2 | 1700 | Own 88C | 5.57 | A | 818 | 15 | Ds | 123 | 11 | 68-4 | 12 | 72-4 | Own | Ro | 33½ | 66 |
| Zen | He 1⅝ | 130 | DR | LD | 12-158 | HM | 58 | None | Own | 2 | 1.98 | H | 2 | 1700 | Own 88C | 5.57 | A | 818 | 15 | Ds | 123 | 11 | 68-4 | 12 | 72-4 | Own | Ro | 41.6 | 67 |
| Cum | | 85 | | DR | 12-158A | Ce | 51 | | | 2 | 6.00 | H | 2 | | Own 88C | 4.88 | A | 818 | 15 | Ds | 123 | 11 | 68-4 | 12 | 72-4 | Own | Ro | 41½ | 68 |

GH—G. M. Hydra-Matic.
GM—General Motors Corp.
H—Hydraulic
Her—Hercules Motor Corp.
He—Horizontal.
Hol—Holley Carburetor Co.
HS—Hall-Scott Motor Div.
HM—Hydraulic mechanical.
I—Valve in-head.
I-C—International-Continental.
IC—Intercity service.
IF—Infinite
Int—International Harvester Co.
L—Valves in-side.
LD—Leece-Neville (Alternator), Delco-Remy (Starter).
L-F—Long or Ford.
Lg—Long Mfg. Div.
LN—Leece-Neville Co.
LR—Lipe Rollway Corp.
M—Mechanical.
Op—Optional.
R—Rear.
Ro—Ross Gear & Tool Co.
Roc—Rockford Drilling Machine Div.
Sag—Saginaw Steering Gear Div.
Spi—Spicer Mfg. Div.
Str—Stromberg Carburetor Div.
Su—Suction.
Sub—Suburban service.
TD—Twin disc.
TR—Transverse in rear.
Tim—Timken Detroit Axle Co.
UF—Underfloor.
Up—Updraft.
Va—Vacuum.
Var—Various.
W—Warner Gear.
Wau—Waukesha Motor Co.
Zen—Zenith Carburetor Div.

**For Directory of the Manufacturers listed above, see page 190.**

# 1951 TRACTORS . . .

| Line Number | TRACTOR MAKE AND MODEL | GENERAL: Wheelbase (In.) | Minimum Turning Radius Outside (Ft.) | Ground Clearance (In.) | Shipping Weight with Rubber Tires (Lb.) | TREAD (In.): Minimum | TREAD (In.): Maximum | DRAWBAR: Lateral Adjustment (In.) | DRAWBAR: Height Above Ground (In.) | OVERALL DIMENSIONS: Length (In.) | OVERALL DIMENSIONS: Width (In.) | OVERALL DIMENSIONS: Height—To Highest Point (In.) | WHEELS: Standard Equipment | WHEELS: STEEL Diam. and Face: Front (In.) | WHEELS: STEEL Diam. and Face: Rear (In.) | WHEELS: TIRE SIZE: Front (In.) | WHEELS: TIRE SIZE: Rear (In.) | HP. RATING: Belt | HP. RATING: Drawbar | Nebraska Test Number | Power Take-off | Number of Forward Speeds | Number of Reverse Speeds | Travel Speeds at Normal Governed Engine R.P.M. (M.P.H.) with Standard Wheels: First | Second | Third |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Allis-Chalmers ..... 1B | 87 1/2 | 7 | 12 1/2 | 2365 | 40 1/2 | 52 1/2 | | 11 1/2 | 97 1/2 | 52 5/8 | 54 1/2 | RT | | | | | | | | Op | 3 | 1 | 3.30 | 5.30 | 10.0 |
| 2 | B | 73 1/8 | 7 1/4 | 21 3/4 | 2060 | 40 1/2 | 52 1/2 | 22 1/4 | 12 1/2 | 110 1/4 | 52 1/2 | 62 | RT | 22x4 | 36x6 | 4.00/15 | 9/24 | 22.87 | 19.51 | 302 | Op | 3 | 1 | 2.60 | 4.01 | 7.90 |
| 3 | C | 77 | 7 | 23 1/4 | 2250 | 52 | 80 | 22 1/4 | 12 1/2 | 114 | 68 1/2 | 62 1/4 | RT | 22x4 | 36x8 | 4.00/15 | 9/24 | 23.81■ | 18.74■ | 364 | Op | 3 | 1 | 2.30 | 3.60 | 7.10 |
| 4 | WC | 87 1/2 | 8 | 29 1/4 | 3310 | 64 1/2 | 75 1/2 | 10 1/2 | 16 | 128 1/2 | 76 5/8 | 67 1/4 | RT | 24x4 | 40x6 | 5.50/16 | 11/28 | 31.43■ | 23.58■ | 304 | Op | 4 | 1 | 2.64 | 3.84 | 5.10 |
| 5 | WF | 70 | 12 | 13 | 3490 | 45 1/2 | 56 1/2 | 10 1/2 | 14 1/4 | 117 1/2 | 57 1/4 | 60 1/4 | RT | 24x4 | 40x6 | 5.50/16 | 11/28 | 31.43■ | 23.58■ | | Op | 4 | 1 | 2.60 | 3.80 | 5.10 |
| 6 | G | 68 1/2 | 6 1/2 | 17 5/8 | 1285 | 36 | 64 | 7 1/8 | 13 | 116 | 36 | 55 1/8 | RT | | | 4.00/12 | 6/30 | 10.91■ | 9.59■ | 393 | | 4 | 1 | 1.60 | 2.26 | 3.57 |
| 7 | WD | 88 | 8 1/2 | 28 1/2 | 3975 | 56 | 90 | 9 1/2 | 16 1/2 | 128 | 74 1/4 | 81 1/2 | RT | | | 5.50/16 | 11.00/28 | 34.63 | 30.23 | 399 | Op | 4 | 1 | 2.64 | 3.85 | 5.11 |
| 8 | Avery ..... R | 79 1/2 | 7 1/2 | 25 | 2730 | 52 | 76 | 20 | 15 1/2 | 115 1/2 | 63 | 75 1/2 | RT | | | 5.00/15 | 10/24 | | | | Op | 4 | 1 | 4.00 | 7.00 | |
| 9 | Case ..... VA | 75 1/4 | 9 1/2 | 15 1/4 | | 44 | 72 1/2 | 16 | 12 | 102 | 65 | 51 1/2 | Op | 25x4 | 38x8 | 5.00/15 | 10/24 | | | | NT | Op | 4 | 1 | 2.25 | 3.00 | 4.00 |
| 10 | VAC | 83 | 8 1/2 | 19 3/4 | | 44 | 88 | 16 | 15 | 119 | 68 | 56 | Op | 21x3 1/2 | 42x3 | 5.00/15 | 9/32 | | | | NT | Op | 4 | 1 | 2.50 | 3.75 | 4.25 |
| 11 | VAI | 75 1/4 | 9 1/2 | 15 1/2 | | 44 | 72 | N | 12 7/8 | 109 1/2 | 65 | 51 1/2 | RT | | | 6.00/16 | 9/24 | | | | NT | Op | 4 | 1 | 2.64 | 4.55 | 5.82 |
| 12 | S | 66 | 10 | | | 48 | | 18 | 13 | 108 | 56 1/4 | 51 | Op | 25x4 | 42x8 | 5.00/16 | 11/26 | | | | NT | Op | 4 | 1 | 2.50 | 3.50 | 5.00 |
| 13 | SC | 82 1/2 | Piv | | | 44 | 80 | 17 | 16 3/4 | 133 | 74 1/2 | 56 | Op | 24 1/2x4 | 48x2 1/2 | 5.00/15 | 10/38 | | | 367 | Op | Op | 4 | 1 | 2.50 | 3.50 | 4.75 |
| 14 | SI | 65 1/2 | 12 | | | 48 1/2 | | N | 15 1/2 | 110 3/4 | 61.9 | 51 1/2 | RT | | | 6.00/16 | 12.00/24 | | | | NT | Op | 4 | 1 | 2.52 | 3.57 | 4.93 |
| 15 | D | 66 1/2 | 10 | | | 50 | | 29 | 13 | 118 | 61 1/2 | 50 1/4 | Op | 26x5 | 42x11 1/2 | 6.00/16 | 12/26 | | | 349 | Op | 4 | 1 | 2.25 | 3.75 | 5.25 |
| 16 | DC | 89 | Piv | | | 48 | 84 | 21 | 16.8 | 140 | 81 | 58 | Op | 25x4 | 48x2 1/2 | 5.50/16 | 11/38 | | | 340 | Op | 4 | 1 | 2.00 | 3.75 | 5.00 |
| 17 | DI | 66 1/2 | 12 | | | 52 | | N | 17 | 111 | 67.2 | 51 1/4 | RT | | | 6.00/16 | 13.00/24 | | | | NT | Op | 4 | 1 | 1.90 | 3.62 | 5.00 |
| 18 | LA | 82 | 13 | | | 59 1/2 | | 33 1/4 | 15 | 140 | 72 1/2 | 61 1/2 | Op | 30x6 | 48x12 | 7.50/18 | 14/30 | | | | NT | Op | 4 | 1 | 2.50 | 3.33 | 4.33 |
| 19 | LAI | 82 | 16 1/4 | | | 59 1/2 | | N | 16 | 131 | 73 1/4 | 59 | RT | | | 7.50/18 | 14.00/28 | | | | NT | Op | 4 | 1 | 1.73 | 3.12 | 4.13 |
| 20 | Corbitt ..... G50 | 86 | 8 1/2 | 20 | 3450 | 56 | 84 | 23 | 18 | 128 | 74 | 69 1/2 | RT | | | 5.50/16 | 10/38 | 36.22 | 32.24 | 422 | St | 4 | 1 | 2.50 | 3.60 | 5.00 |
| 21 | K50 | 86 | 8 1/2 | 20 | 3450 | 56 | 84 | 23 | 18 | 128 | 74 | 69 1/2 | RT | | | 5.50/16 | 10/38 | 29.10 | 25.90 | | St | 4 | 1 | 2.50 | 3.60 | 5.00 |
| 22 | D50 | 86 | 8 1/2 | 20 | 3550 | 56 | 84 | 23 | 18 | 128 | 74 | 69 1/2 | RT | | | 5.50/16 | 10/38 | 35.80 | 31.80 | | St | 4 | 1 | 2.50 | 3.60 | 5.00 |
| 23 | Earthmaster ..... C | 66 | 7 | 20 | 2080 | 36 | 64 | 28 | 15 1/2 | 98 | 51 | 61 | RT | | | 4.00/15 | 9/24 | 12.40 | 10.90 | | Op | 3 | 1 | 2.93 | 4.19 | 6.70 |
| 24 | CH | 66 | 7 | 24 1/2 | 2080 | 36 | 64 | 28 | 20 | 100 | 51 | 64 | RT | | | 4.00/15 | 7/30 | 12.40 | 10.90 | | Op | 3 | 1 | 3.10 | 4.45 | 7.10 |
| 25 | CN | 66 | 7 | 20 | 2065 | 36 | 58 | 28 | 15 1/4 | 98 | 46 | 61 | RT | | | 4.00/15 | 9/24 | 12.40 | 10.90 | | Op | 3 | 1 | 2.93 | 4.19 | 6.70 |
| 26 | CNH | 66 | 7 | 24 1/2 | 2065 | 36 | 58 | 28 | 20 | 100 | 46 | 64 | RT | | | 4.00/15 | 7/30 | 12.40 | 10.90 | | Op | 3 | 1 | 3.10 | 4.45 | 7.10 |
| 27 | D | 66 | 9 | 20 | 2153 | 56 | 84 | 28 | 15 1/4 | 98 | 71 | 61 | RT | | | 4.00/15 | 9/24 | 12.40 | 10.90 | | Op | 3 | 1 | 2.93 | 4.19 | 6.70 |
| 28 | DH | 66 | 9 | 24 1/2 | 2153 | 56 | 84 | 28 | 20 | 100 | 71 | 64 | RT | | | 4.00/15 | 7/30 | 12.40 | 10.90 | | Op | 3 | 1 | 3.10 | 4.45 | 7.10 |
| 29 | Fergusen ..... TO-20 | 70 | 8 | 20 | 2500 | 48 | 80F | 17 1/4 | (n) | 115 | 63 1/2 | 51 3/4 | RT | | | 4x19.00 | 10/28 | 26.50 | 21.77 | 392 | St | 4 | 1 | 3.32 | 4.57 | 6.29 |
| 30 | Ford ..... 8N | 70 | 8 | 13 | 2410 | 48 | 76 | 20 | 8 1/2 | 115 | 64 5/8 | 54 1/2 | RT | | | 4/19 | 10/28 | 26.42 | 22.75 | 393 | St | 4 | 1 | 3.69 | 4.75 | 6.84 |
| 31 | Friday Tractor ..... 048 | 79 | 12 | 12 | 3580 | 57 | 57 | 28 | 15 | 127 | 75 | 55 | RT | | | 6.00/16 | 13/24 | 46.00 | 34.63 | | Op | 10 | 2 | 1.90 | 2.80 | 3.40 |
| 32 | Gibson ..... SD | 46 | 6 | 14 | 910 | 33 | 53 1/4 | N | 13 | 74 | 53 | 45 | RT | | | 4.00/12 | 7/24 | | | | | 3 | 1 | 2.00 | 4.00 | 7.00 |
| 33 | E | 66 | 10 | 21 1/4 | 1844 | 47 | 84 | 6 | 14 | 90 | 71 | 60 | RT | | | 4/12 | 6/24 | 9.00 | 6.50 | | | 3 | 1 | 2.00 | 4.00 | 7.00 |
| 34 | H | 66 | 11 1/2 | 25 | 3400 | 47 | 84 | 13 | 15 1/2 | 123 1/2 | 79 | 67 | RT | | | 5.00/15 | 10/38 | 43.05 | 38.12 | 408 | St | 4 | 1 | 2.16 | 3.37 | 4.75 |
| 35 | I | 94 | 12 1/2 | 25 | 4000 | 49 | 90 | 13 | 15 1/2 | 136 1/2 | 79 1/2 | 67 | RT | | | 5.50/16 | 10/38 | 25.99 | 24.26 | 407 | St | 4 | 1 | 2.16 | 3.37 | 4.75 |
| 36 | I.H. ..... Farmall-Cub | 69 5/8 | 8 1/4 | 19 5/8 | 1140 | 40R | 56 5/8 | 22 1/8 | 12 5/8 | 98 1/2 | 47 1/4 | 62 1/2 | RT | | | 4.00/12 | 7/24 | 9.76 | 8.88 | 386 | Op | 3 | 1 | 2.00 | 3.00 | 6.12 |
| 37 | Farmall-Super-A | 71 | 8 1/2 | 21 5/8 | 2255 | 40R | 68R | 18 1/4 | 14 1/2 | 108 1/2 | 55 1/2 | 64 1/4 | RT | | | 4.00/15 | 9/24 | 19.06 | 17.35 | 329 | Op | 4 | 1 | 2.37 | 3.62 | 4.87 |
| 38 | Farmall-Super-AV | 71 5/8 | 8 3/4 | 27 | 2730 | 44F | 68R | 18 1/4 | 14 1/2 | 115 | 60 5/8 | 70 1/2 | RT | | | 4.00/19 | 9/36 | 19.00 | 17.00 | | Op | 4 | 1 | 3.00 | 4.87 | 6.37 |
| 39 | Farmall-C | 81 5/8 | 7 11 | 22 1/2 | 2625 | 64 3/8 | 80R | 16 1/4 | 16 | 120 5/8 | 80 1/2 | 70 5/8 | RT | | | 4.00/15 | 9/36 | 22.18 | 19.63 | 395 | Op | 4 | 1 | 2.37 | 3.75 | 5.00 |
| 40 | Farmall-H | 86 1/2 | 8 1/2 | 24 5/8 | 3460 | 81 3/4 | 80R | 26 | 16 1/4 | 131 5/8 | 75 1/2 | 75 5/8 | RT | 22 1/2x3 1/2 | 51x8 | 5.50/16 | 10/38 | 27.90 | 25.50 | 333 | Op | 5 | 1 | 2.50 | 3.37 | 4.12 |
| 41 | Farmall-HV | 91 1/2 | 12 1/2 | 30 3/4 | 4555 | 60F | 66F | 30 | 17 3/4 | 146 1/2 | 85 1/2 | 87 | RT | | | 6.00/20 | 12/36 | 27.50 | 25.00 | | Op | 5 | 1 | 2.50 | 3.37 | 4.62 |
| 42 | Farmall-M | 88 1/2 | 8 5/8 | 25 1/4 | 4610 | 81 3/4 | 88R | 26 | 17 1/4 | 133 1/4 | 84 1/2 | 78 1/4 | RT | 22 1/2x4 | 51x10 | 6.00/16 | 11/38 | 39.23 | 34.44 | 328 | Op | 5 | 1 | 2.62 | 3.50 | 4.25 |
| 43 | Farmall-MD | 90 1/4 | 8 1/2 | 25 1/4 | 4965 | 81 3/4 | 88R | 26 | 17 5/8 | 134 5/8 | 84 1/2 | 78 1/4 | RT | 22 1/2x4 | 51x10 | 6.00/16 | 11/38 | 38.56 | 33.04 | 388 | Op | 5 | 1 | 2.62 | 3.50 | 4.25 |
| 44 | Farmall-MV | 91 1/2 | 12 1/2 | 29 1/2 | 5645 | 60F | 66F | 30 | 18 1/2 | 146 1/2 | 85 7/8 | 90 | RT | | | 6.00/20 | 13/36 | 38.50 | 33.50 | | Op | 5 | 1 | 2.50 | 3.37 | 4.12 |
| 45 | Farmall-MDV | 93 1/2 | 12 1/2 | 29 1/2 | 6005 | 60F | 66F | 30 | 18 1/2 | 148 | 85 1/2 | 90 | RT | | | 6.00/20 | 13/36 | 38.00 | 31.50 | | Op | 5 | 1 | 2.50 | 3.37 | 4.12 |
| 46 | McC.-W-4 | 66 1/4 | 11 | 14 1/2 | 3535 | 45 1/4 | 52R | 18 1/4 | 14 1/2 | 114 | 65 1/4 | 62 1/2 | RT | 22 1/2x3 1/2 | 40x8 | 5.50/16 | 12/26 | 27.89 | 25.67 | 353 | Op | 5 | 1 | 2.37 | 3.12 | 4.00 |
| 47 | McC.-W-6 | 76 | 12 3/4 | 15 1/4 | 4610 | 46 1/4 | 55R | 18 1/4 | 17 1/2 | 125 | 69 1/4 | 70 5/8 | RT | 22 1/2x4 | 42x10 | 6.00/16 | 13/30 | 38.74 | 33.81 | 355 | Op | 5 | 1 | 2.37 | 3.37 | 4.37 |
| 48 | McC.-WD-6 | 76 | 12 3/4 | 15 1/4 | 5030 | 46 1/4 | 55R | 18 1/4 | 17 1/2 | 125 | 69 1/4 | 70 5/8 | RT | 22 1/2x4 | 42x10 | 6.00/16 | 13/30 | 36.38 | 31.38 | 356 | Op | 5 | 1 | 2.37 | 3.37 | 4.37 |
| 49 | McC.-W-9 | 83 1/4 | 15 | 15 | 6085 | 52F | 60R | 18 1/4 | 17 1/2 | 134 1/2 | 75 1/4 | 72 1/4 | RT | 30x6 | 48x12 | 7.50/18 | 14/34 | 52.36 | 47.06 | 369 | Op | 5 | 1 | 2.37 | 3.25 | 4.62 |
| 50 | McC.-WD-9 | 83 1/4 | 15 | 15 | 6415 | 52R | 60R | 18 1/4 | 17 1/2 | 134 1/2 | 75 1/4 | 72 1/4 | RT | 30x6 | 48x12 | 7.50/18 | 14/34 | 49.17 | 44.78 | 370 | Op | 5 | 1 | 2.37 | 3.25 | 4.62 |
| 51 | McC.-WR-9 | 83 1/4 | 15 | 15 7/8 | 6490 | 51 1/2 F | 57 1/4 R | 18 1/4 | 15 | 139 1/4 | 69 1/4 | 72 5/8 | SW | 34x6 | 54x12 | 7.50/18 | 15/34 | 52.00 | 46.004 | | Op | 4▲ | 1 | 2.62 | 3.50 | 4.87 |
| 52 | McC.-WDR-9 | 83 1/4 | 15 | 15 7/8 | 6820 | 51 1/2 F | 57 1/4 R | 28 1/4 | 15 | 139 1/4 | 69 1/4 | 72 5/8 | SW | 34x6 | 54x12 | 7.50/18 | 15/34 | 49.00 | 43.504 | | Op | 4▲ | 1 | 2.62 | 3.50 | 4.87 |
| 53 | McC.-O-4 | 66 1/4 | 11 | 12 1/2 | 3795 | 45 1/4 F | 41 1/4 R | 28 1/4 | 14 1/2 | 120 1/2 | 60 1/4 | 57 1/2 | RT | | | 5.50/16 | 12/26 | 27.50 | 25.00 | | Op | 5 | 1 | 1.50 | 3.12 | 4.00 |
| 54 | McC.-OS-4 | 66 1/4 | 11 | 12 1/2 | 3610 | 45 1/4 F | 41 1/4 R | 27 1/2 | 14 1/2 | 120 1/2 | 55 1/2 | 57 1/2 | RT | | | 5.50/16 | 12/26 | 27.50 | 25.00 | | Op | 5 | 1 | 1.50 | 3.12 | 4.00 |
| 55 | McC.-O-6 | 76 1/4 | 12 3/4 | 11 7/8 | 4695 | 46 1/4 F | 45R | 27 1/2 | 14 1/2 | 133 1/4 | 65 | 61 1/2 | RT | | | 6.00/16 | 13/26 | 38.50 | 33.50 | | Op | 5 | 1 | 1.50 | 3.12 | 4.12 |
| 56 | McC.-OS-6 | 76 1/4 | 12 3/4 | 11 7/8 | 4600 | 46 1/4 F | 45R | 27 1/2 | 14 1/2 | 133 1/4 | 59 1/4 | 61 1/2 | RT | | | 6.00/16 | 13/26 | 38.50 | 33.50 | | Op | 5 | 1 | 1.50 | 3.12 | 4.12 |
| 57 | McC.-ODS-6 | 76 1/4 | 12 3/4 | 11 7/8 | 5020 | 46 1/4 F | 45R | 27 1/2 | 14 1/2 | 133 1/4 | 59 1/4 | 61 1/2 | RT | | | 6.00/16 | 13/26 | 38.00 | 31.50 | | Op | 5 | 1 | 1.50 | 3.12 | 4.12 |
| 58 | International ..... Super-A | 71 1/4 | 9 | 15 5/8 | 2155 | 40R | 68R | | 10 | 106 3/4 | 55 1/4 | 64 1/2 | RT | | | 4.00/15 | 9/24 | 19.06 | 17.35 | | Op | 4 | 1 | 2.30 | 3.60 | 4.70 |
| 59 | I-4 Standard | 66 1/4 | 10 | 12 1/4 | 3870 | 48 1/2 | | | 10 1/2 | 113 1/2 | 58 1/4 | 62 3/4 | RT | | | 5.50/16 | 12.00/24 | 27.50 | 25.90 | | Op | 5 | 1 | 2.20 | 3.60 | 5.20 |
| 60 | I-6 Standard | 76 1/4 | 11 1/4 | 11 1/2 | 4925 | 56 | | | 10 1/4 | 125 1/4 | 64 | 68 3/4 | RT | | | 6.00/16 | 13.00/24 | 38.50 | 35.50 | | Op | 5 | 1 | 2.20 | 3.60 | 5.30 |
| 61 | ID6 Standard | 76 1/4 | 11 1/4 | 11 1/2 | 5145 | 56 | | | 10 1/4 | 125 1/4 | 64 | 68 3/4 | RT | | | 6.00/16 | 13.00/24 | 38.50 | 35.50 | | Op | 5 | 1 | 2.20 | 3.60 | 5.30 |
| 62 | I-8 Standard | 83 1/4 | 13 1/4 | 11 1/2 | 6470 | 50 1/2 | | | 12 1/4 | 132 1/2 | 67 1/4 | 69 | RT | | | 7.50/18 | 13.00/32 | 52.00 | 48.20 | | Op | 5 | 1 | 2.30 | 3.10 | 4.30 |
| 63 | ID9 Standard | 83 1/4 | 14 | 13 1/4 | 6600 | 50 1/2 | | | 12 1/4 | 132 1/2 | 67 1/4 | 69 | RT | | | 7.50/18 | 13.00/32 | 52.00 | 48.20 | | Op | 5 | 1 | 2.30 | 3.10 | 5.30 |
| 64 | John Deere ..... R | 90 | 8 7 | 27 | 4052 | 56 | 88 | 26 1/4 | 17 1/4 | 132 1/4 | 86 1/4 | 79 1/4 | RT | | | 5.50/16 | 10.00/38 | 28.89 | 25.50 | 380 | St | 6 | 1 | 1.50 | 2.50 | 3.50 |
| 65 | A | 90 | 8 7 | 26 | 4909 | 56 | 88 | 25 1/2 | 17 1/4 | 134 | 86 1/4 | 81 1/2 | RT | | | 5.50/16 | 11.00/38 | 39.45 | 35.30 | 384 | St | 6 | 1 | 1.50 | 2.50 | 3.50 |
| 66 | AR | 75 1/4 | 13 1/2 | 21 1/2 | 5140 | 54 1/2 | 58 1/2 | 27 | 12 1/2 | 135 1/2 | 71 1/2 | 67 | RT | 28x6 | 42 1/2x10 | 6.00/16 | 13/26 | 39.10 | 34.88 | 429 | Op | 6 | 1 | 1.25 | 2.50 | 3.25 |
| 67 | AO | 75 3/4 | 13 1/2 | 21 1/2 | 5140 | 54 1/2 | 58 1/2 | 27 | 12 1/2 | 125 1/2 | 75 1/2 | 67 1/2 | RT | 28x6 | 42 1/2x10 | 6.00/16 | 13/26 | 39.10 | 34.88 | 429 | Op | 6 | 1 | 1.25 | 2.50 | 3.25 |
| 68 | G | 91 | 8 1/2 | 27 | 5820 | 60 | 84 | 24 1/2 | 15 1/2 | 137 1/2 | 84 1/2 | 86 1/2 | RT | | | 6.00/16 | 12/38 | 39.80 | 36.01 | 383 | | 6 | 1 | 2.50 | 3.60 | 4.50 |
| 69 | D | 70 | 14 | 13 1/2 | 5703 | 55 | 88 | 39 | 15 | 130 | 70 | 86 1/4 | RT | | | 6.00/16 | 12/38 | 44.83 | 40.61 | 350 | | 3 | 1 | 2.66 | 3.46 | 4.66 |
| 70 | M | 70 | 8 1/2 | 21 | 2750 | 38 | 52 | 14 | 15 | 110 | 51 | 66 | RT | | | 5.00/15 | 9.00/24 | 21.42 | 19.19 | 387 | St | 4 | 1 | 1.62 | 3.12 | 4.25 |
| 71 | R | 85 1/2 | 14 1/4 | 25 1/4 | 7500 | 62 1/2 | 62 1/2 | 40 | 15 3/4 | 147 | 79 1/2 | 78 1/4 | RT | 30x6 | t4x12 | 7.50/18 | 14/34 | 50.96 | 45.69 | 406 | Op | 5 | 1 | 2.13 | 3.33 | 4.25 |
| 72 | Love ..... CL51 | 84 | 8 1/2 | 21 1/2 | 4001 | 54 | 78 | 22 | 14 | | | 66 1/2 | RT | | | 6.00/16 | 13/24 | 40.00 | 33.00 | | Op | 10 | 2 | 2.00 | 3.50 | 6.40 |
| 73 | | 74 | 8 1/2 | 23 | 3000 | 57 | 77 | 26 | Ad | | | 69 | RT | | | 5.50/16 | 12/24 | 40.00 | 25.00 | | St | 6 | 2 | 1.88 | 3.41 | 4.65 |
| 74 | Massey-Harris ..... Pony | 66 | | 21 | 1520 | 41 | 72 | | 15 | | 49 | 60 | RT | | | 4.00/15 | 9/24 | 10.34 | 8.31 | 401 | Op | 3 | 1 | 2.74 | 3.59 | 7.00 |
| 75 | Std.-22 | 75 1/4 | 10 | 11 | 2710 | 47 | 48 | 18 1/2 | 10 1/2 | 123 1/4 | 56 1/4 | 70 1/4 | RT | | | 5.00/15 | 10/34 | 31.60 | 23.90 | 403 | Op | 4 | 1 | 2.79 | 3.98 | 5.24 |
| 76 | RC-22 | 82 1/2 | 7 1/2 | 12 1/2 | 2560 | 48 | 88 | 18 1/2 | 11 1/2 | 125 | 61 | 76 | RT | | | 5.00/15 | 10/34 | 31.60 | 23.90 | 403 | Op | 4 | 1 | 2.79 | 3.98 | 5.24 |
| 77 | Std.-30 | 79 | 10 | 9 | 3960 | 52 1/2 | 52 1/2 | 11 | 7 1/2 | 125 | 64 1/4 | 73 | RT | 28x4 1/2 | 44x10 | 5.00/15 | 11/26 | 35.30 | 27.20 | 409 | Op | 5 | 1 | 2.19 | 3.06 | 3.82 |
| 78 | RC-30 | 81 1/2 | 8 1/2 | 13 1/2 | 3770 | 51 1/4 | 68 1/2 | 11 1/2 | 11 1/2 | 127 | 79 | 79 | RT | | 50x1 1/2 | 5.00/15 | 10/38 | 35.30 | 27.20 | 409 | Op | 5 | 1 | 2.58 | 3.61 | 4.51 |
| 79 | Std.-44 | 79 | 11 | 12 | 4500 | 54 1/4 | 54 1/2 | 11 1/2 | 10 1/2 | 129 | 68 1/2 | 76 1/2 | RT | 28x4 1/2 | 48x12 | 6.00/16 | 13/30 | 47.00 | 41.40 | 389 | Op | 5 | 1 | 2.21 | 3.33 | 4.43 |
| 80 | RC-44 | 87 1/2 | 9 | 16 1/4 | 4165 | 51 1/4 | 68 1/2 | 11 1/2 | 14 1/4 | 137 | 79 | 82 | RT | 22x4 | 50x1 1/2 | 5.50/16 | 12/38 | 47.00 | 41.40 | 389 | Op | 5 | 1 | 2.48 | 3.75 | 4.97 |
| 81 | RC-44D | 87 1/2 | 11 | 12 | 4500 | 51 1/4 | 87 1/2 | 11 1/2 | 10 1/2 | 137 | 68 1/2 | 82 | RT | 28x4 1/2 | 48x12 | 6.00/16 | 13/30 | 43.00 | 39.50 | 429 | Op | 5 | 1 | 2.21 | 3.33 | 4.43 |
| 82 | RC-44-6 | 83 | 9 | 16 1/4 | 4120 | 51 1/4 | 68 1/2 | 11 1/2 | 14 1/4 | 137 | 79 | 82 | RT | | 48x12 | 6.00/16 | 13/30 | 36.50 | 25.90 | | Op | 5 | 1 | 2.46 | 3.44 | 4.29 |
| 83 | 55 | 88 1/2 | 12 | 12 1/2 | 7150 | 57 1/4 | 57 1/4 | 23 1/2 | 16 1/2 | 145 | 72 1/2 | 83 1/2 | RT | 30x5 1/2 | 54x12 | 7.50/18 | 14/34 | 54.20 | 51.40 | 394 | Op | 4 | 1 | 2.96 | 4.22 | 5.21 |
| 84 | 55D | 88 1/2 | 12 | 12 1/2 | 7150 | 57 1/4 | 57 1/4 | 23 1/2 | 16 1/2 | 145 | 72 1/2 | 83 1/2 | RT | 30x5 1/2 | 54x12 | 7.50/18 | 14/34 | 54.20 | 51.40 | | Op | 4 | 1 | 2.96 | 4.22 | 5.21 |

For abbreviations, see pages 146 and 147

*For Directory of the Manufacturers listed above, see page 190.*

# . . . WHEEL TYPES



| Travel Speeds at Normal Governed Engine R.P.M. with Standard Wheels | | | | ENGINE | | | | | | | | FUEL | | | | | | | | | BELT PULLEY | | | CAPACITIES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fourth | Fifth | Sixth | Reverse | Make and Model | Number of Cylinders—Bore and Stroke (In.) | Piston Disp. (Cu. In.) | R.P.M. at Governed Speed | Valve Arrangement | Number of Main Bearings | Diameter of Main Bearings | Standard | Optional | Ignition—Make | Carburetor or Injector Pump—Make | Air Cleaner—Make | Governor—Make | Oiling System—Type | Cooling System—Type | Clutch—Make and Type | Final Drive—Type | Diameter (In.) | Face (In.) | Normal R.P.M. | Steering Type | Cooling System (Gal.) | Fuel Tank (Gal.) | Crankcase (Qts.) | Transmission (Qts.) | Final Drive Case (Qts.) | Starting Method | Line Number |
| | | | 3.80 | Own....1B | 4-3½x3½ | 125 | 1400 | I | 3 | 2½ | G | | FM | Zen | Don | Own | P | Pu | Roc | SP SG | 8 | 5½ | 1054 | FK | 2 | 13 | 4 | 7 | 4½ | Ele | 1 |
| | | | 3.00 | Own....B | 4-3½x3½ | 125 | 1400 | I | 3 | 2½ | G,D | | FM | Zen | Don | Own | P | Pu | Roc | SP SG | 8 | 5½ | 1054 | FK | 2 | 13 | 4 | 6 | 11½ | Ele | 2 |
| | | | 2.70 | Own....C | 4-3½x3½ | 125 | 1500 | I | 3 | 2½ | G,D | | FM | Zen | Don | Own | P | Pu | Roc | SP SG | 9 | 6½ | 1129 | SA | 2 | 13 | 4 | 6 | 11½ | Ele | 3 |
| 9.80 | | | 2.20 | Own....W | 4-4x4 | 201 | 1300 | I | 3 | 2.47 | G,D | | FM | Zen | Uni | Own | P | Pu | Roc | SP SG | 9 | 6½ | 1170 | SA | 3½ | 15 | 6 | 4 | 11½ | Ele | 4 |
| 9.80 | | | 2.20 | Own....W | 4-4x4 | 201 | 1300 | I | 3 | 2.47 | G,D | | FM | Zen | Uni | Own | P | Pu | Roc | SP SG | 9 | 6½ | 1170 | FK | 3½ | 15 | 6 | 4 | 11½ | Ele | 5 |
| 6.91 | | | 1.96 | Cont....N62 | 4-2½x3½ | 62 | 1800 | L | 2 | 2 | G | | DR | Mar | Don | Cont | P | TS | Roc | SP SB | 6 | 4 | 1950 | FK | 1½ | 5 | 3½ | 8 | | Ele | 6 |
| 9.80 | | | 2.21 | Own....WD | 4-4x4 | 201 | 1400 | I | 3 | 2½ | G,D | | FM | Zen | Uni | Own | P | Pu | Roc | SP SG | 9 | 6½ | 1260 | SA | 3½ | 15 | 6 | 17 | 2 | Ele | 7 |
| 13.00 | | | | He....IXB | 4-3½x4 | 133 | 1800 | L | 3 | 2 | G | | DR | Mar | Vor | Novi | P | Pu | Roc | SP SG | 10 | 6½ | | | 2½ | 12 | 5 | 9 | 3 | HC | 8 |
| 8.00 | | | 3.00 | Own....VA | 4-3½x3¾ | 124 | 1425 | I | 3 | 2½ | G | D | Own | Mar | Vor | Own | P | Pu | | SP SG | 10½ | 6 | 969 | FK | 3½ | 10 | 4 | 28 | 48 | HE | 9 |
| 8.00 | | | 3.50 | Own....VA | 4-3½x3¾ | 124 | 1425 | I | 3 | 2½ | G | D | Own | Mar | Vor | Own | P | Pu | | SP SG | 10½ | 6 | 969 | SA | 3½ | 10 | 4 | 28 | 48 | HE | 10 |
| 14.00 | | | 3.64 | Own....VA | 4-3½x3¾ | 124 | 1425 | I | 3 | 2½ | G | D | Own | Mar | Vor | Own | P | Pu | | SP SG | 10½ | 6 | 969 | FK | 3½ | 10 | 4 | 28 | 48 | HE | 11 |
| 10.00 | | | 2.75 | Own....S | 4-3½x4 | 154 | 1550 | I | 3 | 2½ | G | D | Own | Zen | Uni | Own | P | Pu | TD | DO CH | 9½ | 6½ | 1078 | FK | 4 | 15½ | 5 | 38 | | HE | 12 |
| 10.00 | | | 2.75 | Own....S | 4-3½x4 | 154 | 1550 | I | 3 | 2½ | G | D | Own | Zen | Uni | Own | P | Pu | TD | DO CH | 9½ | 6½ | 1078 | SA | 4 | 18½ | 5 | 38 | | HE | 13 |
| 10.03 | | | 2.82 | Own....S | 4-3½x4 | 154 | 1550 | I | 3 | 2½ | G | D | Own | Zen | Uni | Own | P | Pu | Roc | MD CH | 9½ | 6½ | 1078 | FK | 4 | 14 | 5 | 38 | | HE | 14 |
| 10.50 | | | 3.00 | Own....D | 4-3½x5½ | 259 | 1200 | I | 3 | 2¾ | G | D | Own | Zen | Own | Own | P | Pu | TD | DO CH | 12¼ | 7¼ | 818 | FK | 7½ | 18 | 7 | 40 | | HE | 16 |
| 10.00 | | | 2.75 | Own....D | 4-3½x5½ | 259 | 1200 | I | 3 | 2¾ | G | D | Own | Zen | Own | Own | P | Pu | TD | DO CH | 12¼ | 7¼ | 818 | FK | 7½ | 18 | 7 | 40 | | HE | 17 |
| 10.20 | | | 2.86 | Own....D | 4-3½x5½ | 259 | 1200 | I | 3 | 2¾ | G | D | Own | Zen | Own | Own | P | Pu | Roc | MD CH | 12¼ | 7¼ | 818 | FK | 8½ | 18 | 7 | 40 | | HE | 18 |
| 10.00 | | | 2.75 | Own....LA | 4-4½x6 | 403 | 1100 | I | 3 | 3 | G | D | Own | Zen | Own | Own | P | Pu | TD | DO CH | 13 | 8½ | 779 | FK | 15½ | 31 | 12 | 68 | | HE | 19 |
| 8.60 | | | 2.48 | Own....LA | 4-4½x6 | 403 | 1100 | I | 3 | 3 | G | D | Own | Zen | Own | Own | P | Pu | | MD CH | 13 | 8½ | 779 | FK | 15½ | 31 | 12 | 68 | | HE | 19 |
| 10.00 | | | 3.20 | Le....D-176 | 4-3¾x4 | 176 | 1800 | I | 3 | (a) | G | | DR | Zen | Uni | Le | P | Pu | BB | SP SG | 8 | 6½ | 1450 | Piv | 3¾ | 12 | 7 | 23 | 33 | Ele | 20 |
| 10.00 | | | 3.20 | Le....D-201 | 4-4x4 | 201 | 1800 | I | 3 | (a) | K | G | DR | Zen | Uni | Le | P | Pu | BB | SP SG | 8 | 6½ | 1450 | Piv | 3¾ | 12 | 7 | 23 | 33 | Ele | 21 |
| 10.00 | | | 3.20 | He....D1X4D | 4-3½x4 | 166 | 1800 | I | 5 | 2¾ | D | | Boe | Uni | He | Pu | P | Pu | BB | SP SG | 8 | 6½ | 1450 | Piv | 4 | 12 | 6 | 23 | 33 | Ele | 22 |
| | | | 3.48 | Cont....N62 | 4-2½x3½ | 62 | 1800 | L | 2 | 2 | G | K | AL | Zen | Vor | Cont | P | TS | Au | SP SG | 7 | 5 | 490 | SA | 1½ | 7 | 4 | 2½ | 2 | Ele | 23 |
| | | | 3.70 | Cont....N62 | 4-2½x3½ | 62 | 1800 | L | 2 | 2 | G | K | AL | Zen | Vor | Cont | P | TS | Au | SP SG | 7 | 5 | 490 | SA | 1½ | 7 | 4 | 2½ | 2 | Ele | 24 |
| | | | 3.48 | Cont....N62 | 4-2½x3½ | 62 | 1800 | L | 2 | 2 | G | K | AL | Zen | Vor | Cont | P | TS | Au | SP SG | 7 | 5 | 490 | SA | 1½ | 7 | 4 | 2½ | 2 | Ele | 25 |
| | | | 3.70 | Cont....N62 | 4-2½x3½ | 62 | 1800 | L | 2 | 2 | G | K | AL | Zen | Vor | Cont | P | TS | Au | SP SG | 7 | 5 | 490 | SA | 1½ | 7 | 4 | 2½ | 2 | Ele | 26 |
| | | | 3.48 | Cont....N62 | 4-2½x3½ | 62 | 1800 | L | 2 | 2 | G | K | AL | Zen | Vor | Cont | P | TS | Au | SP SG | 7 | 5 | 490 | SA | 1½ | 7 | 4 | 2½ | 2 | Ele | 27 |
| | | | 3.70 | Cont....N62 | 4-2½x3½ | 62 | 1800 | L | 2 | 2 | G | K | AL | Zen | Vor | Cont | P | TS | Au | SP SG | 7 | 5 | 490 | SA | 1½ | 7 | 4 | 2½ | 2 | Ele | 28 |
| 13.13 | | | 3.63 | Own....Z-120 | 4-3¼x3¾ | 120 | 2000 | I | 3 | 2¼ | G | | DR | Mar | DV | Novi | P | Pu | Roc | SP SB | 9 | 6½ | 1358 | FK | 2½ | 10 | 7 | 24 | ** | Ele | 29 |
| 13.64 | | | 6.07 | Own....8N | 4-3¼x3½ | 120 | (m) | L | 3 | 2.25 | G | D | Own | Mar | U-O | Novi | P | Pu | BB | SP SB | 9 | 6½ | 1258 | DA | 3 | 10 | 6 | 20 | ** | Ele | 30 |
| 5.10 | 6.40 | 9.20 | 2.80 | Chr....Ind5 | 6-3½x4½ | 218 | 1800 | L | 4 | 2½ | G | | AL | Car | Uni | Pie | P | Pu | BB | SP Hel | 8½ | 6½ | 1025 | FK | 5 | 18½ | 5 | 6 | 6 | Ele | 31 |
| | | | 2.50 | Wis....AEH | 1-3x3½ | 23 | 2000 | L | 2 | | G | K | Wico | Zen | Uni | | NS | A | V-Belt | SB | | | | SA | | 2¾ | 1½ | 1 | 1 | HC | 32 |
| | | | 2.50 | Wis....TF | 2-3½x3½ | 54 | 2000 | L | 2 | (b) | G | K | AL | Zen | Uni | Wis | NS | A | V-Belt | CH | | | | | | 9 | 3½ | 1 | 3 | Ele | 33 |
| 13.74 | | | 2.00 | He....IXB3 | 1-3½x4 | 133 | 1800 | L | 3 | 1.99 | G | K | DR | Mar | Vor | Han | P | Pu | Roc | SP SG | 9½ | 7½ | 1487 | | 3½ | 17 | 5 | 21 | ** | Ele | 34 |
| 13.74 | | | 2.00 | He....QXD5 | 6-3½x4½ | 230 | 1800 | L | 7 | 2.50 | G | K | DR | Mar | Vor | Novi | P | Pu | Roc | SP SG | 9½ | 7½ | 1487 | | 4 | 20 | 6 | 21 | ** | Ele | 35 |
| | | | 2.25 | Own....... | 4-2½x2¾ | 60 | 1600 | L | 3 | 1¾ | G | | Own | Own | Don | Own | P | TS | RA | SP SG | 9 | 4½ | 1322 | FK | 2½ | 7½ | 3 | 11¼ | 11½ | HE | 37 |
| 10.00 | | | 2.87 | Own....... | 4-3x4 | 113 | 1400 | I | 3 | 2½ | G | K,D | Own | MS-Z | Don | Own | P | TS | RA | SP SG | 8½ | 6 | 1157 | FK | 3¼ | 11 | 5 | 5½ | 11½ | HE | 37 |
| 13.25 | | | 3.75 | Own....... | 4-3x4 | 113 | 1400 | I | 3 | 2½ | G | K,D | Own | MS-Z | Don | Own | P | TS | RA | SP SG | 8½ | 6 | 1157 | FK | 3¼ | 11 | 5 | 6 | 11½ | HE | 38 |
| 10.25 | | | 3.00 | Own....... | 4-3x4 | 113 | 1650 | I | 3 | 2½ | G | K,D | Own | MS-Z | Don | Own | P | TS | RA | SP SG | 8½ | 6 | 1383 | SA | 3¼ | 11 | 5 | 20 | | HE | 39 |
| 5.12 | 15.62 | | 2.87 | Own....... | 4-3½x4½ | 152 | 1650 | I | 3 | 2½ | G | K,D | Own | Own | Don | Own | P | Pu | RA | SP SG | 9¾ | 7½ | 1019 | SA | 4½ | 17½ | 6 | 24 | | HE | 40 |
| 5.00 | 15.37 | | 2.87 | Own....... | 4-3½x4½ | 152 | 1650 | I | 3 | 2½ | G | K,D | Own | Own | Don | Own | P | Pu | RA | SP CH | 9¾ | 7½ | 1019 | FK | 4½ | 17½ | 6 | 24 | | HE | 41 |
| 5.12 | 16.25 | | 3.12 | Own....... | 4-3½x5½ | 248 | 1450 | I | 3 | 2¾ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 11 | 7½ | 899 | SA | 6 | 21 | 8 | 52 | | HE | 42 |
| 5.12 | 16.25 | | 3.12 | Own....... | 4-3½x5½ | 248 | 1450 | I | 5 | 3¾ | O | | | Own | Don | Own | P | Pu | Roc | SP SG | 11 | 7½ | 899 | SA | 6¾ | 20½ | 9 | 52 | | HE | 43 |
| 5.00 | 15.87 | | 3.12 | Own....... | 4-3½x5½ | 248 | 1450 | I | 3 | 2¾ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP CH | 11 | 7½ | 899 | FK | 6 | 21 | 8 | 52 | 11½ | HE | 44 |
| 5.00 | 15.87 | | 3.12 | Own....... | 4-3½x5½ | 248 | 1450 | I | 5 | 3¾ | O | | | Own | Don | Own | P | Pu | Roc | SP CH | 11 | 7½ | 899 | FK | 6¾ | 20½ | 9 | 52 | 11½ | HE | 45 |
| 5.00 | 14.62 | | 2.75 | Own....... | 4-3½x4½ | 152 | 1650 | I | 3 | 2½ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 9¾ | 7½ | 1019 | FK | 4½ | 17½ | 6 | 24 | | HE | 46 |
| 5.37 | 15.87 | | 2.87 | Own....... | 4-3½x5½ | 248 | 1450 | I | 3 | 2¾ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 11 | 7½ | 899 | FK | 6½ | 21 | 8 | 52 | | HE | 47 |
| 5.37 | 15.87 | | 2.87 | Own....... | 4-3½x5½ | 248 | 1450 | I | 5 | 3¾ | O | | | Own | Don | Own | P | Pu | Roc | SP SG | 11 | 7½ | 899 | FK | 6¾ | 20½ | 9 | 52 | | HE | 48 |
| 5.82 | 16.25 | | 3.00 | Own....... | 4-4.4x5½ | 334 | 1500 | I | 3 | 3½ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 14 | 8½ | 707 | FK | 10 | 36 | 11 | 40 | | HE | 49 |
| 5.82 | 16.25 | | 3.00 | Own....... | 4-4.4x5½ | 334 | 1500 | I | 5 | 4½ | O | | | Own | Don | Own | P | Pu | Roc | SP SG | 14 | 8½ | 707 | FK | 11 | 35 | 11 | 40 | | HE | 50 |
| 6.00 | 16.754 | | 3.12 | Own....... | 4-4.4x5½ | 334 | 1500 | I | 3 | 3½ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 14 | 8½ | 707 | FK | 10 | 36 | 11 | 40 | | HE | 51 |
| 6.00 | 16.754 | | 3.12 | Own....... | 4-4.4x5½ | 334 | 1500 | I | 5 | 4½ | O | | | Own | Don | Own | P | Pu | Roc | SP SG | 14 | 8½ | 707 | FK | 11 | 35 | 11 | 40 | | HE | 52 |
| 5.00 | 14.62 | | 1.75 | Own....... | 4-3½x4½ | 152 | 1650 | I | 3 | 2½ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 9¾ | 7½ | 1019 | FK | 4½ | 17½ | 6 | 24 | | HE | 53 |
| 5.00 | 14.62 | | 1.75 | Own....... | 4-3½x4½ | 152 | 1650 | I | 3 | 2½ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 9¾ | 7½ | 1019 | FK | 4½ | 17½ | 6 | 24 | | HE | 54 |
| 4.87 | 14.62 | | 1.87 | Own....... | 4-3½x5½ | 248 | 1450 | I | 3 | 2¾ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 11 | 7½ | 899 | FK | 6½ | 21 | 8 | 52 | | HE | 55 |
| 4.87 | 14.62 | | 1.87 | Own....... | 4-3½x5½ | 248 | 1450 | I | 3 | 2¾ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 11 | 7½ | 899 | FK | 6½ | 21 | 8 | 52 | | HE | 56 |
| 4.87 | 14.62 | | 1.87 | Own....... | 4-3½x5½ | 248 | 1450 | I | 5 | 3¾ | O | | | Own | Don | Own | P | Pu | Roc | SP SG | 11 | 7½ | 899 | FK | 6¾ | 20½ | 9 | 52 | | HE | 57 |
| 9.80 | | | 2.80 | Own....... | 4-3x4 | 113 | 1400 | I | 3 | 2½ | G | K,D | Own | MS-Z | Don | Own | P | TS | Roc | SP SG | 8½ | 6 | 1157 | FK | 3¼ | 11 | 5 | 5 | 11½ | HE | 58 |
| 7.40 | 15.50 | | 3.00 | Own....... | I-4 | 4-3¾x4½ | 152 | 1650 | I | 3 | 2½ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 9¾ | 7½ | 1019 | FK | 4½ | 17½ | 6 | 24 | ** | HE | 59 |
| 7.40 | 14.30 | | 2.60 | Own....... | I-6 | 4-3½x5½ | 248 | 1450 | I | 3 | 2¾ | G | K,D | Own | Own | Don | Own | P | Pu | Roc | SP SG | 11 | 7½ | 899 | FK | 6½ | 21 | 8 | 52 | ** | HE | 60 |
| 7.40 | 14.30 | | 2.60 | Own....... | ID-6 | 4-3½x5½ | 248 | 1450 | I | 5 | 3¾ | O | | | Own | Don | Own | P | Pu | Roc | SP SG | 11 | 7½ | 899 | FK | 6¾ | 20½ | 9 | 52 | ** | HE | 61 |
| 7.30 | 15.20 | | 2.60 | Own....... | I-9 | 4-4.4x5½ | 335 | 1500 | I | 3 | 3¼ | G | K,D | Own | Own | Don | Own | P | Pu | Own | SP SG | 14 | 8½ | 707 | FK | 10 | 36 | 11 | 40 | ** | HE | 62 |
| 7.30 | 15.20 | | 2.60 | Own....... | ID-9 | 4-4.4x5½ | 335 | 1500 | I | 5 | 4½ | O | | | Own | Don | Own | P | Pu | Own | SP SG | 14 | 8½ | 707 | FK | 11 | 35 | 11 | 40 | ** | HE | 63 |
| 4.50 | 5.75 | 10.0 | 2.50 | Own....... | 2-4 | 4½x5½ | 190 | 1250 | I | 2 | 2½ | G | | Wico | Mar | Don | Own | P | TS | Own | SP SG | 9½ | 7½ | 1250 | WS | 7 | 17 | 7 | 10 | | Ele | 64 |
| 4.40 | 6.30 | 11.0 | 2.90 | Own....... | 2-5 | 4½x5½ | 321 | 975 | I | 2 | 2⅝ | G | D | Wico | Mar | Don | Own | P | TS | Own | SP SG | 12½ | 7¾ | 975 | WS | 8½ | 18 | 11 | 28 | | Ele | 65 |
| 4.38 | 6.25 | 11.0 | 2.75 | Own....... | AR | 2-5½x6½ | 321 | 975 | I | 2 | 2⅝ | G | D,K | Wico | Mar | Don | Own | P | TS | Own | MD SG | 12½ | 7¾ | 975 | WG | 8½ | 20 | 11 | 32 | | Ele | 66 |
| 4.38 | 6.25 | 11.0 | 2.75 | Own....... | AO | 2-5½x6½ | 321 | 975 | I | 2 | 2⅝ | G | D,K | Wico | Mar | Don | Own | P | TS | Own | MD SG | 12½ | 7¾ | 975 | WG | 8½ | 20 | 11 | 32 | | Ele | 67 |
| 6.50 | 8.75 | 12.50 | 3.00 | Own....... | GM | 2-6½x7 | 412 | 975 | I | 2 | 3 | D | G | Wico | Mar | Don | Own | P | TS | Own | SP SG | 12½ | 8½ | 975 | WS | 13 | 17 | 11 | 28 | | Ele | 68 |
| | | | 1.75 | Own....... | D | 2-6½x7 | 501 | 900 | I | 2 | 3 | D | G | E-A | Mar | Don | Own | P | TS | Own | SP SG | 13½ | 8½ | 900 | WG | 14 | 23½ | 13 | 28 | | Ele | 69 |
| 10.00 | | | 1.62 | Own....... | M | 2-4x4 | 101 | 1650 | | 2 | | G | | | Dr | Mar | Don | Own | P | TS | Op | SP SG | 6¾ | 6 | 1730 | FK | 4 | 10 | 5 | 6½ | | Ele | 70 |
| 5.33 | 11.5 | | 2.50 | Own....... | R | 2-5½x8 | 416 | 1000 | I | 2 | 4 | O | | | BS | Mar | Don | Own | P | TS | Own | MD SG | 12¼ | 9 | 1000 | WG | 14½ | 22 | 13 | 9 | | Ele | 71 |
| 10.30 | 15.20 | 40.00 | 2.80 | Chr....Ind 6 | 6-3½x4½ | 230 | 2000 | L | 4 | 2½ | G | | AL | Car | Don | Pie | P | Pu | BB | SP FG | 9 | 6½ | 1360 | DA | 2¾ | 18½ | 5 | 5 | | Ele | 72 |
| 5.32 | 8.37 | 13.00 | 3.41 | WO....DJ | 4-3½x4 | 134 | 2000 | L | 3 | | G | | AL | Car | | Novi | P | Pu | BB | SP CH | 9 | 6½ | 1300 | DA | 2¾ | 10½ | 5 | 6½ | 6 | Ele | 73 |
| | | | 3.22 | Cont....N62 | 4-2½x3½ | 62 | 1800 | L | 2 | | G | | AL | Mar | Don | | P | TS | Roc | SP SG | 6 | 5½ | 1990 | FK | 1½ | 7 | 3.3 | 3 | | | 74 |
| 14.80 | | | 2.79 | Cont....F140 | 4-3½x4½ | 140 | 1500 | L | 3 | 2¼ | G | D | AL | Mar | Don | Novi | P | Pu | BB | SP SG | 9½ | 6 | 1224 | FK | 2¾ | 13 | 5 | 21 | ** | Ele | 75 |
| 14.80 | | | 2.79 | Cont....F140 | 4-3½x4½ | 140 | 1500 | L | 3 | 2¼ | G | D | AL | Mar | Don | Novi | P | Pu | BB | SP SG | 9½ | 6 | 1224 | SA | 2¾ | 13 | 5 | 21 | ** | Ele | 76 |
| 5.35 | 10.71 | | 2.48 | Cont....F162 | 4-3½x4½ | 162 | 1500 | L | 3 | 2¼ | G | D | AL | Mar | Don | Novi | P | Pu | BB | SP SG | 13½ | 6 | 838 | FK | 2¾ | 19 | 5 | 52 | ** | Ele | 77 |
| 6.31 | 12.63 | | 2.93 | Cont....F162 | 4-3½x4½ | 162 | 1500 | L | 3 | 2¼ | G | D | AL | Mar | Don | Novi | P | Pu | BB | SP SG | 13½ | 6 | 838 | SA | 2¾ | 19 | 5 | 52 | ** | Ele | 78 |
| 5.75 | 12.28 | | 2.89 | Own....H260 | 4-3½x5½ | 260 | 1350 | I | 3 | 2⅞ | G | D | AL | Zen | Don | Own | P | Pu | BB | SP SG | 13½ | 6 | 863 | FK | 5½ | 19 | 8 | 52 | ** | Ele | 79 |
| 6.46 | 13.82 | | 3.26 | Own....H260 | 4-3½x5½ | 260 | 1350 | I | 3 | 2⅞ | G | D | AL | Zen | Don | Own | P | Pu | BB | SP SG | 13½ | 6 | 863 | SA | 6½ | 19 | 8 | 52 | ** | Ele | 80 |
| 5.75 | 12.28 | | 2.89 | Own....HD20 | 4-3½x5½ | 260 | 1350 | I | 3 | 2⅞ | O | | | Boe | Don | Boe | P | Pu | BB | SP SG | 13½ | 6 | 863 | FK | 5¾ | 19 | 8 | 52 | ** | Ele | 81 |
| 6.01 | 12.02 | | 2.78 | Cont....F226 | 6-3½x4½ | 226 | 1500 | L | 4 | 2⅝ | G | | AL | Mar | Don | Novi | P | Pu | BB | SP SG | 16 | 6 | 838 | FK | 4 | 23 | 6 | 52 | ** | Ele | 82 |
| 12.07 | | | 2.54 | Own....J382 | 4-4½x6 | 382 | 1350 | I | 3 | 3¼ | G | D | AL | Zen | Don | Own | P | Pu | BB | SP SG | 16 | 8 | 730 | FK | 7 | 27½ | 10 | 68 | ** | Ele | 83 |
| 12.07 | | | 2.54 | Own....JD382 | 4-4½x6 | 382 | 1350 | I | 3 | 3¼ | O | | | Boe | Don | Boe | P | Pu | BB | SP SG | 13½ | 8 | 730 | SA | 7 | 27½ | 10 | 68 | ** | Ele | 84 |

For abbreviations, see pages 146 and 147

*For Directory of the Manufacturers listed above, see page 190.*

# 1951 MODELS OF

| Line Number | TRACTOR MAKE AND MODEL | GENERAL: Wheelbase (In.) | Minimum Turning Radius Outside (Ft.) | Ground Clearance (In.) | Shipping Weight with Rubber Tires (Lb.) | TREAD (In.): Minimum | TREAD (In.): Maximum | DRAWBAR: Lateral Adjustment (In.) | DRAWBAR: Height Above Ground (In.) | OVERALL DIMENSIONS: Length (In.) | OVERALL DIMENSIONS: Width (In.) | OVERALL DIMENSIONS: Height—To Highest Point (In.) | Standard Equipment | WHEELS: STEEL Diam. and Face: Front (In.) | WHEELS: STEEL Diam. and Face: Rear (In.) | WHEELS: TIRE SIZE: Front (In.) | WHEELS: TIRE SIZE: Rear (In.) | HP. RATING: Belt | HP. RATING: Drawbar | Nebraska Test Number | Power Take-off | Number of Forward Speeds | Number of Reverse Speeds | Travel Speeds at Normal Governed Engine R.P.M. (M.P.H.) with Standard Wheels: First | Second | Third |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | M-M ..... Standard-R | 86 | 10 | 11½ | 3000 48F | 88 | | 14½ | 12 | 109 | 82 | 68½ | RT | | | | | 5.00/15 | 10/34 | 20.49 | 15.58 | NT | Op | 4 | 1 | 2.40 | 3.40 | 4.30 |
| 2 | ..... Universal-R | 76 | 8 | 22 | 3050 8F | 88 | | 14½ | 12 | 116 | 82 | 68½ | RT | | | | | 5.00/15 | 10/34 | 20.49 | 15.58 | 341 | Op | 4 | 1 | 2.40 | .340 | 4.30 |
| 3 | ..... Industrial-R | 66½ | 12 | 11½ | 3650 47¼F | | | N | 16 | 104 | 59 | 63½ | RT | | | | | 750/16 | 12.00/24 | 22.00 | 17.00 | NT | Op | 4 | 1 | 2.20 | 3.20 | 4.10 |
| 4 | Universal-RN | 76½ | 7½ | 22 | 2950 52 | 88 | | 14½ | 12 | 119 | 82 | 69 | RT | | | | | 6.00/12 | 10/34 | 20.49 | 15.58 | NT | Op | 4 | 1 | 2.40 | 3.40 | 4.30 |
| 5 | Universal-RE | 84½ | | 22 | 3250 52 | 88 | | 14½ | 12 | 125 | 82 | 68½ | RT | | | | | 5.00/15 | 10/34 | 20.49 | 15.58 | NT | Op | 4 | 1 | 2.40 | 3.40 | 4.30 |
| 6 | Universal-U | 88 | 8½ | 25 | 5300 9 | 85R | | 22 | 15 | 140 | 81 | 91½ | Op | 24x5 | 50x10 | 6.00/16 | 12/38 | 38.48 | 28.32 | 319 | Op | 5 | 1 | 2.70 | 3.40 | 4.40 |
| 7 | ..... Standard-U | 80 | 12 | 24 | 5300 56½F | 86R | | 22 | 15 | 132 | 70 | 91½ | Op | 28x5 | 50x10 | 6.00/16 | 12/38 | 38.12 | 30.86 | 310 | Op | 5 | 1 | 2.70 | .380 | 4.40 |
| 8 | ..... Industrial-U | 79½ | 16 | 16 | 7400 54½R | 83½R | | N | 20 | 126 | 76 | 74 | RT | | | 8.25/20 | 12.00/28 | 38.48 | 28.32 | NT | Op | 5 | 1 | 2.30 | 3.20 | 3.70 |
| 9 | G | 82½ | 14 | 14½ | 6400 54½F | 82R | | 25 | 14¼ | 137 | 81 | 95½ | RT | | | 7.50/18 | 14/34 | 50.58 | 38.90 | 437 | Op | 5 | 1 | 2.50 | 3.50 | 4.10 |
| 10 | Standard-Z | 72½ | 12 | 24 | 3750 48F | | | 11¼ | 13½ | 120½ | 66 | 65 | RT | | | 5.50/16 | 11/38 | 31.86 | 25.02 | NT | Op | 5 | 1 | 2.40 | 3.60 | 4.60 |
| 11 | Universal-ZE | 90½ | | 25 | 3900 54R | 88R | | 11¼ | 13½ | 135¼ | 85 | 73 | RT | | | 5.50/16 | 11/38 | 31.86 | 25.02 | NT | Op | 5 | 1 | 2.40 | 3.60 | 4.60 |
| 12 | Universal-Z | 82 | 8 | 25 | 3700 54R | 88R | | 11¼ | 13½ | 127¼ | 85 | 73 | RT | | | 5.50/16 | 11/38 | 31.86 | 25.02 | 438 | Op | 5 | 1 | 2.40 | 3.60 | 4.60 |
| 13 | Universal-ZN | 82½ | 8 | 25 | 3700 54R | 88R | | 11¼ | 13½ | 126¾ | 85 | 73 | RT | | | 5.50/16 | 11/38 | 31.86 | 25.02 | NT | Op | 5 | 1 | 2.40 | 3.60 | 4.60 |
| 14 | Industrial-UTIL | 87½ | 17 | 14 | 7700 54½R | 82½ | | N | 20 | 134½ | 77 | 72 | RT | | | 8.25/20 | 12.00/28 | 38.12 | 30.86 | NT | Op | 5 | ** | 2.30 | 3.20 | .370 |
| 15 | Oliver Rowcrop-66HC | 86½ | 8½ | 16½ | 2540 60 | 88 | | 20½ | 17 | 134½ | 80¼ | 73½* | RT | | 5½ | 5.00/15 | 9/36 | 26.06 | 22.30 | 412 | Op | 6 | 2 | 2.46 | 3.25 | 4.25 |
| 16 | ..... Standard-66HC | 73½ | 10 | 11½ | 2492 50¾ | 58¾ | | 20½ | 13½ | 123½ | 61½ | 66½* | RT | | | 5.00/15 | 10/24 | 26.21 | 22.61 | 413 | Op | 6 | 2 | 2.50 | 3.30 | 4.32 |
| 17 | ..... 66-Ind. | 73½ | 10 | 11½ | 2462 50¾ | 58¾ | | 20½ | 13½ | 123½ | 61½ | 66½* | RT | | | 6.00/16 | 10/24 | | | NT | Op | 6 | 2 | 1.79 | 2.37 | 3.10 |
| 18 | ..... Rowcrop-77HC | 90½ | 9½ | 18½ | 3623 60 | 92½ | | 20½ | 15½ | 139½ | 80¼ | 75* | RT | | 5½ | 5.50/16 | 11/38 | 38.82 | 34.20 | 425 | Op | 6 | 2 | 2.45 | 3.22 | 4.27 |
| 19 | ..... Standard-77HC | 78½ | 10¾ | 12½ | 3464 | 52½ | | 20¾ | 12¾ | 129¾ | 65¼ | 69½* | RT | | | 5.50/16 | 12/26 | 38.82 | 34.20 | 425 | Op | 6 | 2 | 2.48 | 3.27 | 4.33 |
| 20 | ..... 77-Ind. | 85½ | 15¼ | 12½ | 4550 52½ | 89½ | | 20¾ | 11¼ | 137½ | 78¾ | 70* | RT | | | 7.00/20 | 12.00/24 | | | NT | Op | 6 | 2 | 1.95 | 2.59 | 3.44 |
| 21 | ..... 99 | 90 | 14 | 16½ | 6200 53 | 53 | | 18½ | 15 | 132¾ | 68¾ | 67¾* | RT | 29x6 | 46x12 | 7.50/18 | 14/30 | 49.04 | 34.21 | 183 | Op | 6 | 2 | 2.23 | 3.32 | 4.32 |
| 22 | ..... 99 | 90 | 14 | 16½ | 6400 53 | 53 | | 18½ | 15 | 132¾ | 68¾ | 67¾* | RT | 29x6 | 46x12 | 7.50/18 | 14/30 | 63.87 | 54.57 | 481 | Op | 4 | 1 | 2.23 | 3.32 | 4.32 |
| 23 | ..... 900 Ind. | 92½ | 15 | 12½ | 10400 49¼ | 82¼ | | 30 | 15¼ | 145 | 96 | 72* | RT | | | 7.00/20 | 14.00/32 | 63.00 | 50.00 | | | 4 | 1 | 2.82 | 5.48 | 9.03 |
| 24 | ..... Standard 88HC | 79½ | 11 | 13 | 4392 54 | 62 | | 20½ | 15 | 133½ | 68½ | 69½* | RT | | 44x10 | 6.00/16 | 13/26 | 44.98 | 38.56 | 391 | Op | 6 | 2 | 2.48 | 3.22 | 4.27 |
| 25 | ..... Rowcrop 88HC | 93½ | 9¾ | 18½ | 4598 60 | 92½ | | 20¾ | 13½ | 143½ | 80¼ | 75 | RT | | 55x11 | 6.00/16 | 12/38 | 44.66 | 38.40 | 388 | Op | 6 | 2 | 2.49 | 3.22 | 4.28 |
| 26 | ..... 88 Ind. | 86½ | 15½ | 12½ | 4860 54 | 71 | | 20½ | 14 | 139½ | 81½ | 70¾* | RT | | | 7.00/20 | 13.00/24 | | | NT | Op | 6 | 2 | 2.00 | 2.59 | 3.44 |
| 27 | ..... Rowcrop 88D | 93½ | 9¾ | 18½ | 4813 60 | 92½ | | 20¾ | 13½ | 143½ | 80¼ | 75* | RT | | 55x11 | 6.00/16 | 12/38 | 45.15 | 39.07 | 450 | Op | 6 | 2 | 2.49 | 3.22 | 4.28 |
| 28 | ..... Standard 88D | 79½ | 11 | 13 | 4607 54 | 62 | | 20½ | 15 | 133½ | 68½ | 69½* | RT | | 44x10 | 6.00/16 | 13/26 | 45.15 | 39.07 | 450 | Op | 6 | 2 | 2.48 | 3.22 | 4.27 |
| 29 | ..... Ind. 88D | 86½ | 15½ | 12½ | 5008 54 | 71 | | 20½ | 14 | 139½ | 81½ | 70¾* | RT | | | 7.00/20 | 13/24 | | | NT | Op | 6 | 2 | 2.00 | 2.59 | 3.44 |
| 30 | Rowcrop 77D | 90½ | 9¼ | 18¼ | 3811 60 | 92½ | | 20¾ | 15½ | 139½ | 80¼ | 75* | RT | | 55x11 | 5.50/16 | 11/38 | | | NT | Op | 6 | 2 | 2.45 | 3.22 | 4.27 |
| 31 | Standard 77D | 78½ | 10¾ | 12¾ | 3652 52½ | 52½ | | 20¾ | 12¾ | 129¾ | 65¼ | 69½* | RT | | | 5.50/16 | 12/26 | | | NT | Op | 6 | 2 | 2.48 | 3.27 | 4.33 |
| 32 | ..... Ind. 77D | 85½ | 15¼ | 12¾ | 4738 52½ | 62½ | | 20¾ | 11¼ | 137½ | 81¾ | 70* | RT | | | 7.00/20 | 12/24 | | | NT | Op | 6 | 2 | 1.95 | 2.59 | 3.44 |
| 33 | Sheppard SD-2 | 85 | 7½ | 25 | 4525 56 | 84 | Ad | Ad | | 125 | ‡‡ | 70½ | RT | | | 6.00/16 | 11/38 | | | NT | Op | 8 | 2 | 1.85 | 2.67 | 3.14 |
| 34 | SD-3 | 92 | 8 | 25 | 4750 56 | 84 | Ad | Ad | | 131 | ‡‡ | 70½ | RT | | | 6.00/16 | 11/38 | | | NT | Op | 8 | 2 | 1.85 | 2.67 | 3.14 |
| 35 | Silver King 3WH-Std | 83¾ | 7 | 29 | 3350 56 | 84 | 27 | 14 | 131 | 72½ | 70 | RT | | | | 7.50/16 | 10.00/28 | 34.53 | 29.80 | 424 | Op | 4 | 1 | 2.67 | 10.5 | 13.93 |
| 36 | 4WH-RC | 86 | 9 | 16½ | 3000 44 | 72 | 27 | 15 | 113¾ | 67½ | 73 | RT | | | | 6.50/16 | 10.00/28 | | | NT | Op | 4 | 1 | 3.25 | 5.18 | 7.20 |
| 37 | Tiger PTD-5 | 48 | 8 | 13 | 518 26 | 40 | N | 13 | 64 | 26 | 35 | RT | | | | 4.00/8 | 5.00/12 | 5.10 | 4.50 | St | | 1 | 1 | 8.00 | | |

**ABBREVIATIONS**

**—Included in transmission.
†—Clearance at rear axle.
‡—Rated using gasoline.
‡—Clearance at front axle.
•—To top of steering wheel.
^—To top of hood.
^—5 with rubber tires.
*—Minimum.
††—Capacity final drive—Each case.
‡‡—74½ in. to 98 in.

**—With reversing transmission and 6 reverse speeds, from a Low Reverse of 1.5 and 5 other reverse speeds from 2 to 10.9 M.P.H.
◊—Total capacity final drive cases.
▲—When equipped with pneumatic tires.
A—Air. AL—Electric Auto-Lite Co.
(a)—2 1/16, 2 1/16, 2 1/16.
Ad—Adjustable.
Au—Auburn Clutch Co.
BB—Borg & Beck Div.
(b)—Roller bearing.
Bos—American Bosch Corp.
Br—Briggs & Stratton Corp.
BS—Scintilla Magneto Div.
Car—Carter Carburetor Corp.
CH—Chain. Chr—Chrysler Corp.
Cont—Continental Motors Co.
D—Distillate. DA—Divided axle.
DO—Double plate operating in oil.
DR—Delco-Remy Div.
Don—Donaldson Co.
DV—Donaldson or Vortox.
E-A—Edison Splitdorf or Auto-Lite.
Ele—Electric starting.
F—Front wheel tread.
FG—Fluid coupling and internal gear.
FK—Front axle knuckle.
FM—Fairbanks Morse & Co.
FO—Fork type. G—Gasoline.
(h)—3" Rear; Front S.A.E. 212 Roller; Center 2.75.
Han—Handy Governor Corp.
HC—Hand crank.

***For Directory of the Manufacturers listed above, see page 190.***

## Estimated Proved Reserves of Crude Oil in the U. S. A.*

(Thousands of Barrels of 42 U. S. Gallons)

| | Proved Reserves as of December 31, 1949 | Changes in Proved Reserves Due to Extensions (New Crude Oil) and Revisions During 1950 | Proved Reserves Discovered in New Fields and in New Pools in Old Fields in 1950 | Production During 1950 | Proved Reserves as of December 31, 1950 (Columns 1+2+3 less Column 4) | Changes in Reserves During 1950 (Column 5 less Column 1) |
|---|---|---|---|---|---|---|
| Alabama | 3,547 | 2,376 | 116 | 643 | 5,396 | 1,849 |
| Arkansas | 297,463 | 69,163 | 4,284 | 29,201 | 341,709 | 44,246 |
| California | 3,822,751 | 227,673 | 10,745 | 327,607 | 3,733,562 | —89,189 |
| Colorado | 344,812 | 15,215 | 2,390 | 23,088 | 339,529 | —5,283 |
| Illinois | 465,138 | 150,509 | 8,582 | 63,011 | 564,218 | 96,080 |
| Indiana | 50,209 | 7,440 | 9,969 | 10,246 | 57,372 | 7,163 |
| Kansas | 738,390 | 73,680 | 27,698 | 107,581 | 732,187 | —6,203 |
| Kentucky | 56,168 | 7,676 | 2,415 | 10,388 | 55,871 | —297 |
| Louisiana | 1,909,769 | 396,285 | 79,342 | 200,259 | 2,185,137 | 275,368 |
| Michigan | 66,496 | 26,729 | 1,409 | 15,917 | 78,717 | 12,221 |
| Mississippi | 402,860 | 15,819 | 2,900 | 35,874 | 385,705 | —17,155 |
| Montana | 112,393 | 7,141 | 240 | 8,502 | 111,272 | —1,121 |
| Nebraska | 1,624 | 5,368 | 4,033 | 1,325 | 9,700 | 8,076 |
| New Mexico | 592,232 | 31,065 | 12,418 | 43,723 | 591,982 | —240 |
| New York | 62,900 | ..... | ..... | 4,092 | 58,808 | —4,092 |
| Ohio | 27,703 | 2,875 | ..... | 3,314 | 27,264 | —439 |
| Oklahoma | 1,329,918 | 193,331 | 37,531 | 163,867 | 1,396,913 | 66,995 |
| Pennsylvania | 103,356 | 15,000 | ..... | 11,996 | 106,860 | 3,004 |
| Texas | 13,509,732 | 551,170 | 338,669 | 817,929 | 13,581,642 | 71,910 |
| Utah | 15,831 | 7,000 | 25 | 1,227 | 21,629 | 5,798 |
| West Virginia | 37,992 | 3,500 | 350 | 2,800 | 39,042 | 1,050 |
| Wyoming | 691,602 | 188,434 | 21,600 | 60,620 | 841,016 | 149,414 |
| Miscellaneous | 3,613 | 320 | ..... | 566 | 3,367 | —246 |
| Total United States | 24,649,489 | 1,997,769 | 564,916 | 1,943,776 | 25,268,398 | 618,909 |

*—American Petroleum Industries Committee.
(—)—Denotes decrease.

# WHEEL TYPE—*Concluded*

| Travel Speeds at Normal Governed Engine R.P.M. with Standard Wheels | | | | ENGINE | | | | | | | | FUEL | | | | | | | | | | BELT PULLEY | | | | CAPACITIES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fourth | Fifth | Sixth | Reverse | Make and Model | Number of Cylinders—Bore and Stroke (in.) | Piston Disp. (Cu. In.) | R.P.M. at Governed Speed | Valve Arrangement | Number of Main Bearings | Diameter of Main Bearings | | Standard | Optional | Ignition—Make | Carburetor or Injector Pump—Make | Air Cleaner—Make | Governor—Make | Oiling System—Type | Cooling System—Type | Clutch—Make and Type | Final Drive—Type | Diameter (In.) | Face (In.) | Normal R.P.M. | Steering Type | Cooling System (Gal.) | Fuel Tank (Gal.) | Crankcase (Qts.) | Transmission (Qts.) | Final Drive Case (Qts.) | Starting Method | Line Number |
| 12.30 | ..... | ..... | 2.70 | Own.. EE | 4-3½x4 | 165 | 1400 | ih | 2 | 3 | | G | D | DR | Mar | Uni | Own | P | Pu | TD.. SP SG | | 12¼ | 6 | 933 | FK | 3½ | 14 | 7 | 18 | ** | HE | 1 |
| 12.30 | ..... | ..... | 2.70 | Own.. EE | 4-3½x4 | 165 | 1400 | ih | 2 | 3 | | G | D | DR | Mar | Uni | Own | P | Pu | TD.. SP SG | | 12¼ | 6 | 933 | SA | 3½ | 14 | 7 | 18 | ** | HE | 2 |
| 11.50 | ..... | ..... | 2.50 | Own.. EE | 4-3½x4 | 165 | 1500 | ih | 2 | 3 | | G | D | DR | Mar | Uni | Own | P | Pu | Roc.. SP SG | | 12¼ | 6 | 1000 | FK | 3½ | 14 | 7 | 18 | ** | HE | 3 |
| 12.30 | ..... | ..... | 2.70 | Own.. EE | 4-3½x4 | 165 | 1400 | ih | 2 | 3 | | G | D | DR | Mar | Uni | Own | P | Pu | TD.. SP SG | | 12¼ | 6 | 933 | FO | 3½ | 14 | 7 | 18 | ** | HE | 4 |
| 12.30 | ..... | ..... | 2.70 | Own.. EE | 4-3½x4 | 168 | 1400 | ih | 2 | 3 | | G | D | DR | Mar | Uni | Own | P | Pu | TD.. SP SG | | 12¼ | 6 | 933 | FK | 3½ | 14 | 7 | 18 | ** | HE | 5 |
| 6.40 | 14.80 | ..... | 2.10 | Own283A-4 | 4-4¼x5 | 283 | 1275 | I | 3 | 2¾ | | G | D, LP | DR | Mar | Uni | Own | P | Pu | TD.. SP SG | | 16 | 7 | 727 | SA | 6 | 21½ | 9 | 52 | ** | HE | 6 |
| 6.40 | 14.80 | ..... | 2.10 | Own283A-4 | 4-4¼x5 | 283 | 1275 | I | 3 | 2¾ | | G | D, LP | DR | Mar | Uni | Own | P | Pu | TD.. SP SG | | 16 | 7 | 727 | FK | 6 | 21½ | 9 | 52 | ** | HE | 7 |
| 5.40 | 12.50 | ..... | 1.80 | Own283A-4 | 4-4¼x5 | 283 | 1300 | I | 3 | 2¾ | | G | D | DR | Mar | Uni | Own | P | Pu | Roc.. SP SG | | 16 | 7 | 741 | FK | 6 | 21½ | 9 | 52 | ** | HE | 8 |
| 6.00 | 13.80 | ..... | 2.00 | Own403A-4 | 4-4⅝x6 | 403 | 1100 | I | 3 | 2¾ | | G | D, LP | DR | Mar | Don | Own | P | Pu | TD.. SP SG | | 16 | 7 | 627 | FK | 12 | 29 | 9 | 52 | ** | HE | 9 |
| 6.30 | 13.10 | ..... | 2.20 | Own206B-4 | 4-3⅜x5 | 206 | 1500 | Ih | 3 | (h) | | G | D | DR | Mar | Don | Own | P | Pu | TD.. SP SG | | 15¼ | 7 | 786 | FK | 3¾ | 19 | 7 | 28 | ** | HE | 10 |
| 6.30 | 13.10 | ..... | 2.20 | Own206B-4 | 4-3⅜x5 | 206 | 1500 | Ih | 3 | (h) | | G | D | DR | Mar | Don | Own | P | Pu | TD.. SP SG | | 15¼ | 7 | 786 | FK | 3¾ | 19 | 7 | 28 | ** | HE | 11 |
| 6.30 | 13.10 | ..... | 2.20 | Own206B-4 | 4-3⅜x5 | 206 | 1500 | Ih | 3 | (h) | | G | D | DR | Mar | Don | Own | P | Pu | TD.. SP SG | | 15¼ | 7 | 706 | SA | 3¾ | 19 | 7 | 28 | ** | HE | 12 |
| 6.30 | 13.10 | ..... | 2.20 | Own206B-4 | 4-3⅜x5 | 206 | 1500 | Ih | 3 | (h) | | G | D | DR | Mar | Don | Own | P | Pu | TD.. SP SG | | 15¼ | 7 | 706 | FO | 3¾ | 19 | 7 | 28 | ** | HE | 13 |
| 5.40 | 12.05 | ..... | ** | Own283A-4 | 4-4¼x5 | 283 | 1300 | I | 3 | 2¾ | | G | D | DR | Mar | Uni | Own | P | Pu | Roc.. SP SG | | 16 | 7 | 741 | FK | 6 | 21½ | 9 | 52 | ** | HE | 14 |
| 5.60 | 6.81 | 11.42 | 2.58 | Own..... | 4-3⅞x3¾ | 129 | 1600 | I | 3 | 2¼ | G | ..... | | DR | Mar | Don | Own | PS | Pu | BB.. SP SG | | 11¼ | 7¼ | 987 | SA | 3 | 10 | 4 | 16 | ** | Ele | 15 |
| 5.70 | 6.72 | 11.60 | 2.60 | Own..... | 4-3⅞x3¾ | 129 | 1600 | I | 3 | 2¼ | G | ..... | | DR | Mar | Don | Own | PS | Pu | BB.. SP SG | | 11¼ | 7¼ | 987 | FK | 3 | 10 | 4 | 16 | ** | Ele | 16 |
| 4.08 | 8.07 | 13.90 | 1.87 | Own..... | 4-3⅞x3¾ | 129 | 1600 | I | 3 | 2¼ | G | ..... | | DR | Mar | Don | Own | PS | Pu | BB.. SP SG | | 11¼ | 7¼ | 987 | FK | 3 | 10 | 4 | 16 | ** | Ele | 17 |
| 5.62 | 6.58 | 11.47 | 2.58 | Own..... | 6-3½x3¾ | 194 | 1600 | I | 4 | 2¼ | G | ..... | | DR | Mar | Don | Own | PS | Pu | BB.. SP SG | | 11¼ | 7¼ | 992 | SA | 4½ | 16½ | 5 | 18 | ** | Ele | 18 |
| 5.70 | 6.69 | 11.65 | 2.61 | Own..... | 6-3½x3¾ | 194 | 1600 | I | 4 | 2¼ | G | ..... | | DR | Mar | Don | Own | PS | Pu | BB.. SP SG | | 11¼ | 7¼ | 992 | FK | 4½ | 16½ | 5 | 18 | ** | Ele | 19 |
| 4.52 | 9.06 | 15.80 | 2.08 | Own..... | 6-3½x3¾ | 194 | 1600 | I | 4 | 2½ | G | ..... | | DR | Mar | Don | Own | PS | Pu | BB.. SP SG | | 11¼ | 7¼ | 992 | FK | 4½ | 16½ | 5 | 18 | ** | Ele | 20 |
| 5.58 | ..... | ..... | 3.23 | Own..... | 4-4¾x6½ | 443 | 1125 | I | 3 | 3 | D, O | G | ..... | DR | Mar | Don | Own | P | Pu | BB.. SP SG | | 16¼ | 8¼ | 596 | FK | 10½ | 34 | 12 | 48 | ** | Ele | 21 |
| 5.56 | ..... | ..... | 3.23 | Own..... | 4-4¾x6½ | 443 | 1125 | I | 3 | 3 | G | ..... | | DR | Mar | Don | Own | P | Pu | BB.. SP SG | | 16¼ | 8¼ | 596 | FK | 10½ | 34 | 12 | 48 | ** | Ele | 22 |
| 17.95 | ..... | ..... | 4.11 | Own..... | 4-4¾x6½ | 443 | 1200 | I | 3 | 3 | G | ..... | | DR | Mar | Don | Own | P | Pu | Roc.. SP SG | | | | | FK | 10½ | 40 | 12 | 48 | ** | Ele | 23 |
| 5.53 | 6.80 | 11.70 | 2.54 | Own..... | 6-3⅛x4 | 231 | 1600 | I | 4 | 2⅝ | G | ..... | | DR | Mar | Don | Own | PS | Pu | BB.. SP SG | | 11½ | 7¼ | 992 | FK | 9½ | 20 | 6 | 18 | ** | Ele | 24 |
| 5.56 | 6.82 | 11.75 | 2.56 | Own..... | 6-3⅛x4 | 231 | 1600 | I | 4 | 2⅝ | G | ..... | | DR | Mar | Don | Own | PS | Pu | BB.. SP SG | | 11½ | 7¼ | 992 | SA | 4½ | 20 | 6 | 18 | ** | Ele | 25 |
| 4.46 | 9.27 | 15.95 | 2.05 | Own..... | 6-3⅛x4 | 231 | 1600 | I | 4 | 2⅝ | G | ..... | | DR | Mar | Don | Own | PS | Pu | BB.. SP SG | | 11½ | 7¼ | 992 | FK | 4½ | 20 | 6 | 18 | ** | Ele | 26 |
| 5.56 | 6.82 | 11.75 | 4.38 | Own.. .88 | 6-3⅛x4 | 231 | 1600 | I | 4 | 2⅝ | O | ..... | | Bos | Don | Bos | PS | Pu | BB | SP SG | | 11½ | 7¼ | 992 | SA | 4½ | 19 | 6 | 18 | ** | Ele | 27 |
| 5.53 | 6.80 | 11.75 | 4.36 | Own.. .88 | 6-3⅛x4 | 231 | 1600 | I | 4 | 2⅝ | O | ..... | | Bos | Don | Bos | PS | Pu | BB | SP SG | | 11½ | 7¼ | 992 | FK | 4½ | 19 | 6 | 18 | ** | Ele | 28 |
| 4.46 | 9.27 | 15.95 | 3.53 | Own.. .88 | 6-3⅛x4 | 231 | 1600 | I | 4 | 2⅝ | O | ..... | | Bos | Don | Bos | PS | Pu | BB | SP SG | | 11½ | 7¼ | 992 | FK | 4½ | 19 | 6 | 18 | ** | Ele | 29 |
| 5.62 | 6.58 | 11.47 | 4.52 | Own.. .77 | 6-3½x3¾ | 194 | 1600 | I | 4 | 2¼ | O | ..... | | Bos | Don | Bos | PS | Pu | BB | SP SG | | 11½ | 7¼ | 992 | SA | 4½ | 16½ | 5 | 18 | ** | Ele | 30 |
| 5.70 | 6.68 | 11.65 | 4.57 | Own.. .77 | 6-3½x3¾ | 194 | 1600 | I | 4 | 2¼ | O | ..... | | Bos | Don | Bos | PS | Pu | BB | SP SG | | 11½ | 7¼ | 992 | FK | 4½ | 16½ | 5 | 18 | ** | Ele | 31 |
| 4.52 | 9.06 | 15.80 | 3.57 | Own.. .77 | 6-3½x3¾ | 194 | 1600 | I | 4 | 2¼ | O | ..... | | Bos | Don | Bos | PS | Pu | BB | SP SG | | 11½ | 7¼ | 992 | FK | 4½ | 16½ | 5 | 18 | ** | Ele | 32 |
| 3.72 | 4.53 | 6.27 | 3.91 | Own.. 13E | 2-4¼x5 | 142 | 1650 | I | 3 | 2¾ | O | ..... | Own | Own | Don | Own | P | TS | Roc | MD | IG | 8¼ | | 1650 | SA | 7 | 15 | 12 | ..... | ..... | Ele | 33 |
| 3.72 | 4.53 | 6.27 | 3.91 | Own..... .6B | 3-4x5 | 213 | 1650 | I | 4 | 2¾ | O | ..... | Own | Own | Don | Own | P | TS | Roc | MD | IG | 8¼ | | 1650 | SA | 7½ | 15 | 13 | ..... | ..... | Ele | 34 |
| 19.10 | ..... | ..... | 1.97 | Cont.. F162 | 4-3⅞x4½ | 162 | 1800 | L | 3 | 2¼ | G | ..... | | DR | Mar | Don | Pie | P | Pu | BB.. SP SG | | 6½ | 8 | 1800 | FO | 3 | 11¼ | 5 | 7 | ††½ | Ele | 35 |
| 23.20 | ..... | ..... | 2.39 | Cont.. F162 | 4-3⅞x4½ | 162 | 1800 | L | 3 | 2¼ | G | ..... | | DR | Mar | Don | Pie | P | Pu | BB.. SP SG | | 6½ | 8 | 1800 | FK | 3 | 11¼ | 5 | 7 | ††½ | Ele | 36 |
| ..... | ..... | ..... | 8.00 | Br..... 14 | 1-2⅝x2½ | 14 | 3200 | L | ..... | ..... | | G | ..... | Br | Br | Uni | Br | PS | A | TD | MD | SGC | | | | SA | ..... | 1 | ..... | ½ | 1 | 1 | HC | 37 |

**He**—Hercules Motors Corp.
**HE**—Hand or Electric.
**Hel**—Helical gear.
**I**—In head (Valves).
**IG**—Internal gear.
**Ih**—Horizontal—In head (Valves).
**K**—Kerosene. **L**—"L" head (Valves).
**Le**—Le Roi Co. **Lg**—Long Mfg. Div.
**LP**—Liquid petroleum gas.
**(m)**—From 800 to 2000.
**Mar**—Marvel-Schebler Carb. Div.
**MD**—Multiple disc operating dry.
**MS-Z**—Marvel-Schebler or Zenith.
**N**—No or none.
**(n)**—Minimum 12° maximum 22°.
**Novi**—Novi Equipment Co.
**NS**—Non-circulating splash.
**NT**—Not tested.
**O**—Diesel fuel.
**Op**—Optional. **P**—Pressure.
**Pie**—Pierce Governor Co.
**Piv**—Pivot.
**PS**—Pressure and splash.
**Pu**—Pump.
**R**—Rear wheel tread.
**RA**—Rockford-Atwood.
**Roc**—Rockford Drilling Mach. Div
**RT**—Rubber tires. **SA**—Solid axle.
**SB**—Spiral bevel gear.
**SG**—Spur gear.
**SGC**—Spur gear and chain.
**SP**—Single plate, dry. **St**—Standard.
**SW**—Steel wheels.
**TD**—Twin Disc Clutch Co.
**TS**—Thermo-Syphon.
**Uni**—United Air Cleaner Div.
**U-O**—United and Oaks products.
**Vor**—Vortex Mfg. Co.
**WG**—Worm gear.
**Wis**—Wisconsin Motor Corp.
**WO**—Willys-Overland.
**WS**—Worm and sector.
**Zen**—Zenith Carburetor Div.

***For Directory of the Manufacturers listed above, see page 190.***

## Estimated Proved Reserves of Natural Gas Liquids in the U. S. A.*

(Includes condensate, natural gasoline, and liquefied petroleum gases.)

(Thousands of Barrels of 42 U. S. Gallons)

| | Proved Reserves as of December 31, 1949 | Changes in Proved Reserves Due to Extensions (New Natural Gas Liquids) and Revisions During 1950 | Proved Reserves Discovered in New Fields and in New Pools in Old Fields in 1950 | Production During 1950 | Proved Reserves as of December 31, 1950 (Columns 1+2+3 less Column 4) | Changes in Reserves During 1950 (Column 5 less Column 1) |
|---|---|---|---|---|---|---|
| Arkansas | 55,642 | 745 | 230 | 3,679 | 52,938 | —2,704 |
| California | 320,275 | 71,079 | 250 | 28,217 | 363,387 | 43,112 |
| Colorado | 24,190 | —10,837 | ..... | 432 | 12,921 | —11,269 |
| Illinois | 26,666 | 3,063 | 28 | 3,438 | 26,259 | —407 |
| Indiana | 126 | 34 | 24 | 32 | 152 | 26 |
| Kansas | 106,405 | 60,578 | 341 | 3,746 | 163,578 | 57,173 |
| Kentucky | 13,245 | 308 | 154 | 1,780 | 11,927 | —1,318 |
| Louisiana | 596,422 | 56,492 | 18,992 | 28,394 | 643,512 | 47,090 |
| Michigan | 1,203 | —75 | 14 | 124 | 1,018 | —185 |
| Mississippi | 56,407 | 2,040 | 100 | 2,650 | 55,897 | —510 |
| Montana | 3,710 | 81 | ..... | 244 | 3,547 | —163 |
| Nebraska | 37 | 65 | 140 | 7 | 235 | 198 |
| New Mexico | 85,719 | 11,773 | 1,370 | 4,965 | 93,897 | 8,178 |
| Ohio | 1,670 | 108 | 12 | 102 | 1,688 | 18 |
| Oklahoma | 234,030 | 61,897 | 4,922 | 20,946 | 279,903 | 45,873 |
| Pennsylvania | 2,643 | 135 | 68 | 247 | 2,599 | —44 |
| Texas | 2,143,711 | 443,196 | 31,326 | 122,188 | 2,496,039 | 352,328 |
| Utah | 208 | —9 | ..... | 5 | 194 | —14 |
| West Virginia | 12,831 | 634 | 212 | 4,701 | 8,976 | —3,855 |
| Wyoming | 43,863 | 6,636 | ..... | 1,512 | 48,987 | 5,124 |
| Miscellaneous | 9 | 2 | ..... | 2 | 9 | ..... |
| Total United States | 3,729,012 | 707,879 | 58,183 | 227,411 | 4,267,663 | 538,651 |

*—Based on report prepared by Committee from American Petroleum Institute and American Gas Association.

# 1951 MODELS OF

| Line Number | TRACTOR MAKE ND MODEL | GENERAL: Minimum Turning Radius Outside (Ft.) (Minimum Tread) | GENERAL: Ground Clearance (In.) | GENERAL: Shipping Weight (Lb.) Standard Shoe (Minimum Tread) | GENERAL: Tread Minimum (In.) | GENERAL: Tread Maximum (In.) | DRAWBAR: Lateral Adjustment—At Pin (In.) | DRAWBAR: Height Above Ground (In.) | OVERALL DIMENSIONS: Length (In.) | OVERALL DIMENSIONS: Width—Maximum (In.) (Minimum Tread) | OVERALL DIMENSIONS: Height to Highest Point (In.) | TRACK: Width of Shoe—Standard (In.) | TRACK: Length on Ground (In.) | HP. RATING: Belt | HP. RATING: Drawbar | Power Take-off | No. of Forward Speeds | No. of Reverse Speeds | MAXIMUM DRAWBAR PULL AT NORMAL GOVERNED ENGINE R.P.M.: First Gear (Lb.) | Second Gear (Lb.) | Third Gear (Lb.) | Fourth Gear (Lb.) | Fifth Gear (Lb.) | Sixth Gear (Lb.) | Travel Speeds at Normal Governed Engine R.P.M.: First Gear (M.P.H.) | Second Gear (M.P.H.) | Third Gear (M.P.H.) | Fourth Gear (M.P.H.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Allis-Chalmers ... HD-5 | 8′6 | 11½ | 10500 | 44 | 60 | 21 | 13¼ | 124′7 | 62½ | 60⅝◆ | 13 | 64¼ | 50.25 | 40.26 | Op | 5 | 1 | 10080 | 5890 | 4200 | 3375 | 2220 | .... | 1.46 | 2.44 | 3.30 | 3.96 |
| 2 | HD-7 | 7′ | 9½ | 13830 | 52 | 63 | 19½ | 11⅝ | 127′4 | 70 | 66⅞◆ | 16 | 67 | 71.06 | 60.10 | Op | 4 | 1 | 12600 | 9705 | 7015 | 4070 | .... | .... | 1.59 | 2.19 | 2.97 | 5.00 |
| 3 | HD-10 | 8½ | 11⅝ | 21000 | 62 | 74 | 32 | 14⅜ | 150′5 | 82¼ | 75½ | 18 | 84½ | 101.62 | 86.63 | Op | 6 | 2 | 18850 | 14050 | 10605 | 7730 | 5585 | 3885 | 1.57 | 2.06 | 2.68 | 3.54 |
| 4 | HD-19H | 10½ | 18½ | 40000 | .... | 84 | 44 | 19⅞ | 190¾ | 109¼ | 94⅞ | 24 | 106 | 163.00 | .... | † | ‡‡ | .... | ** | † | .... | .... | .... | .... | .... | ** | † | .... | .... |
| 5 | Caterpillar ... Diesel-D2 | .... | 9 | 6710 | 40 | 50 | 20 | 12 | 107⅞ | 55¼ | 57⅜ | 12 | 54 | 38.00 | 32.00 | Op | 5 | 1 | 6950 | 4730 | 3750 | 2990 | 1950 | .... | 1.70 | 2.50 | 3.00 | 3.60 |
| 6 | Diesel-D4 | .... | 11¼ | 10065 | 44 | 60 | 21 | 14⅛ | 120⅛ | 62 | 60⅛ | 13 | 61¼ | 48.00 | 43.00 | Op | 5 | 1 | 9550 | 6930 | 5270 | 4000 | 2570 | .... | 1.70 | 2.40 | 3.00 | 3.70 |
| 7 | Diesel-D6 | .... | 12½ | 16725 | 60 | 74 | 27¾ | 14 | 149½ | 80½ | 75¼ | 16 | 85⅝ | 76.00 | 66.00 | Op | 5 | 4 | 17000 | 10900 | 7450 | 5150 | 3620 | .... | 1.40 | 2.30 | 3.20 | 4.40 |
| 8 | Diesel-D7 | .... | 15½ | 25130 | 74 | 74 | 36 | 17¼ | 162¼ | 97 | 80 | 20 | 93¼ | 93.00 | 81.00 | Op | 5 | 4 | 21700 | 13500 | 9020 | 6000 | 4270 | .... | 1.40 | 2.20 | 3.20 | 4.60 |
| 9 | Diesel-D8 | .... | 10½ | 35950 | 78 | 78 | 43 | 18½ | 189¼ | 103¾ | 90 | 22 | 99¾ | 148.00 | 130.00 | Op | 5 | 3 | 28700 | 21700 | 16650 | 11900 | 8600 | .... | 1.70 | 2.30 | 2.80 | 3.70 |
| 10 | I.H.C. ... T-6 | 5½ | 8¾ | 6750 | 40 | 50 | 19¾ | 12¼ | 104 | 53 | 62¼ | 12 | 58⅜ | 38.96 | 32.92 | Op | 5 | 1 | 7652 | 5215 | 3579 | 2767 | 1758 | .... | 1.52 | 2.21 | 3.12 | 3.83 |
| 11 | TD-6 | 5½ | 8¾ | 7035 | 40 | 50 | 19¾ | 12¼ | 104 | 53 | 62¼ | 12 | 58⅜ | 37.80 | 31.30 | Op | 5 | 1 | 7710 | 5300 | 3640 | 2880 | 1690 | .... | 1.52 | 2.21 | 3.12 | 3.83 |
| 12 | T-9 | 6 | 10¼ | 9300 | 44 | 60 | 19¾ | 13⅜ | 114 | 59¼ | 66⅜ | 13 | 63¼ | 48.69 | 42.98 | Op | 5 | 1 | 9866 | 6904 | 4956 | 3650 | 2434 | .... | 1.56 | 2.20 | 3.04 | 3.88 |
| 13 | TD-9 | 6 | 10¼ | 9525 | 44 | 60 | 19¾ | 13⅜ | 114 | 59½ | 66⅜ | 13 | 63¼ | 48.40 | 40.40 | Op | 5 | 1 | 9900 | 6800 | 4750 | 3575 | 2400 | .... | 1.56 | 2.20 | 3.06 | 3.88 |
| 14 | TD-14A | 7½ | 11⅜ | 15520 | 56 | 74 | 27⅝ | 13½ | 134½ | 74½ | 73¾ | 16 | 78⅝ | 75.30 | 65.90 | Op | 6 | 2 | 14654 | 11772 | 8867 | 6895 | 5005 | 3813 | 1.57 | 2.05 | 2.65 | 3.36 |
| 15 | TD-18A | 8½ | 14 | 22570 | 62 | 74 | 31¼ | 15⅜ | 158¼ | 82¼ | 79 | 20 | 84⅝ | 101.98 | 89.29 | Op | 6 | 2 | 20234 | 15279 | 11754 | 8890 | 6502 | 4870 | 1.66 | 2.18 | 2.70 | 3.52 |
| 16 | TD-24 | 9½ | 13⅞ | 37500 | .... | 80 | 39¼ | 17¼ | 182¼ | 102 | 89⅝ | 22 | ** | .... | 148.43 | Op | 8 | 3 | 33714 | 26493 | 21873 | 17025 | 12468 | †† | 1.60 | 2.03 | 2.45 | 3.12 |
| 17 | Oliver ... Crawler-HG | 6½ | 20 | 3125 | 31 | 68 | 25 | 13¾ | 102½ | 41¼ | 50◆ | 6 | 50 | 22.00 | 16.00 | Op | 3 | 1 | 3060 | 2170 | 1060 | .... | .... | .... | 2.02 | 3.19 | 5.25 | .... |
| 18 | Crawler-AG-6 | 7½ | 13½ | 7086 | 42 | 50 | 21 | 11⅝ | 103½ | 56 | 54◆ | 12 | 62 | 38.80 | 30.60 | Op | 3 | 1 | 6020 | 4160 | 2640 | .... | .... | .... | 1.78 | 2.62 | 3.74 | .... |
| 19 | Crawler-AD | 7½ | 13½ | 7662 | 42 | 50 | 21 | 11⅝ | 101½ | 56 | 54◆ | 12 | 62 | 38.00 | 33.50 | Op | 3 | 1 | 6500 | 4520 | 2800 | .... | .... | .... | 1.78 | 2.62 | 3.74 | .... |
| 20 | Crawler-BGS | 8½ | 12 | 8514 | 44 | 52 | 14⅝ | 12¼ | 106 | 62¼ | 64◆ | 14 | 63 | 50.00 | 38.00 | Op | 4 | 2 | 7500 | 5700 | 4200 | 2000 | .... | .... | 1.80 | 2.63 | 3.44 | 5.40 |
| 21 | Crawler-BD | 8½ | 12 | 9374 | 44 | 52 | 14⅝ | 12¼ | 106 | 62¼ | 64◆ | 14 | 63 | 46.09 | 38.05 | Op | 4 | 2 | 8012 | 5586 | 4127 | 2000 | .... | .... | 1.80 | 2.64 | 3.45 | 5.41 |
| 22 | Crawler-DG | 9 | 12¼ | 12472 | 48 | 61 | 16⅜ | 14¼ | 128 | 69 | 67◆ | 16 | 74¼ | 69.00 | 61.20 | Op | 4 | 2 | 11000 | 9350 | 7003 | 4155 | .... | .... | 1.84 | 2.49 | 3.31 | 5.30 |
| 23 | Crawler-DD | 9 | 12¼ | 13233 | 48 | 61 | 16⅜ | 14¼ | 128 | 69 | 67◆ | 16 | 74¼ | 67.71 | 61.19 | Op | 4 | 2 | 11816 | 10022 | 7595 | 4568 | .... | .... | 1.70 | 2.30 | 3.06 | 4.88 |
| 24 | Crawler-FDE | 14½ | 18¼ | 29760 | 69 | .... | 25 | 17¾ | 170 | 103¼ | 86½◆ | 22 | 96 | 130.00 | 110.00 | Op | 4 | 2 | 26800 | 15900 | 11000 | 6300 | .... | .... | 1.61 | 2.74 | 3.67 | 4.95 |
| 25 | Ustrac ... 10A | .... | 6 | 3425 | 29½ | .... | 8 | 15 | 92 | 43¼ | 54 | 7½ | 51½ | 22.59 | 16.37 | St | 4 | 4 | 3256 | 3249 | 1747 | 815 | .... | .... | 0.92 | 1.89 | 3.45 | 5.87 |

**ABBREVIATIONS**

*—Electric starter optional.
◆—Exclusive of tail pipes.
**—Included in transmission.
◆◆—Track length on ground 104½".
††—Capacity final drive—Each case.
‡‡—9309 lbs. in 6th gear, 7043 lbs. in 7th, 4892 lbs. in 8th.
‡‡—5.15 MPH in 6th gear, 6.15 MPH in 7th, 7.83 MPH in 8th.
‡‡—Reverse speeds ranging from 1.56 to 7.67.
‡‡—192 qts. including rear main frame cases.
**—1st speed range 0-3 MPH with 36,000 lb. pull.
‡—2nd speed range 0-7 MPH with 28,000 lb. pull.
‡‡—Low reverse speed range 0-5.5 MPH with 36,000 lb. pull.
^—With converter. AL—Electric Auto-Lite Co.
A-R—Auburn or Rockford
Aub—Auburn Clutch Co.
Bos—American Bosch Co. Clu—Clutches.
Cont—Continental Motors Corp. D—Distillate.
Dif—Differential. Don—Donaldson Co.

*For Directory of the Manufacturers listed above, see page 190.*

# Operating Statistics of

## Average Size of Class I Intercity Bus Company*

| Year | Number of Companies | Number of Buses in Intercity Service per Company | Number of Revenue Passengers per Company | Number of Bus Miles Operated per Company | Investment in Carrier Operating Property per Company | Number of Employees per Company |
|---|---|---|---|---|---|---|
| 1940 | 135 | 50 | 1,037,570 | 3,572,880 | 690,901 | 151 |
| 1941 | 132 | 60 | 1,418,332 | 4,217,709 | 830,586 | 173 |
| 1942 | 136 | 71 | 2,426,051 | 5,164,125 | 948,268 | 216 |
| 1943 | 157 | 72 | 3,192,956 | 5,299,987 | 870,257 | 237 |
| 1944 | 194 | 61 | 2,933,600 | 4,661,492 | 650,202 | 206 |
| 1945 | 231 | 53 | 2,444,942 | 4,030,052 | 564,555 | 184 |
| 1946 | 254 | 49 | 2,141,118 | 4,109,255 | 687,352 | 184 |
| 1947 | 253 | 51 | 2,091,339 | 4,173,495 | 894,154 | 181 |
| 1948 | 260 | 56 | 2,066,553 | 4,352,009 | 1,092,757 | 184 |
| 1949 | 264 | n.a. | 1,853,203 | 4,184,225 | n.a. | n.a. |
| 1950† | 183‡ | n.a. | 1,368,652 | 3,930,474 | n.a. | n.a. |

* Based on data from NAMBO and ICC. † First nine months. ‡ Status of a Class I Carrier changed from $100,000 to $200,000 gross operating revenue—January, 1950. n.a.—Not available.

## Number and Value of Buses Owned

by Class I Intercity Passenger Carriers*

| Year | Number of Companies | Acquired: Number | Acquired: Total Value | Acquired: Value per Bus | Retired: Number | Retired: Total Value | Retired: Value per Bus | Total Owned: Number | Total Owned: Total Value | Total Owned: Value per Bus |
|---|---|---|---|---|---|---|---|---|---|---|
| 1945 | 231 | 2,461 | $25,816,953 | $10,490 | 1,855 | $9,527,664 | $5,136 | 12,766 | $199,406,579 | $9,363 |
| 1946 | 254 | 3,120 | 24,158,661 | 11,396 | 2,381 | 14,112,997 | 5,927 | 13,152 | 133,085,677 | 10,119 |
| 1947 | 253 | 3,321 | 53,845,136 | 16,214 | 2,718 | 17,225,181 | 6,337 | 14,149 | 173,524,861 | 12,264 |
| 1948 | 260 | 3,711 | 67,602,430 | 18,217 | 3,029 | 25,512,774 | 8,423 | 15,290 | 219,479,690 | 14,354 |

* Interstate Commerce Commission.

# TRACKLAYING TRACTORS

| Travel Speeds at Normal Governed Engine R.P.M. | | | | ENGINE | | | | | | | | | FUEL | | | | | | | | | | | | | BELT PULLEY | | | CAPACITIES | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fifth Gear (M.P.H.) | Sixth Gear (M.P.H.) | Low Reverse (M.P.H.) | High Reverse (M.P.H.) | Make and Model | Cycle | No. of Cylinders—Bore and Stroke (in.) | Displacement (Cu. In.) | R.P.M. at Governed Speed | S.A.E. or Tax Hp. | Valve Arrangement | No. of Main Bearings | Diam. Main Bearings (in.) | Standard | Optional | Ignition—Make | Carburetor or Injector Pump—Make | Air Cleaner—Make | Governor—Make | Oiling System—Type | Cooling System—Type | Clutch—Make and Type | Drive Type to Traction Members | Diameter (In.) | Face (In.) | Normal R.P.M. | Steering Type | Cooling System (Gal.) | Fuel Tank (Gal.) | Crankcase (Qts.) | Transmission (Qts.) | Final Drive Case (Qts.) (Each Case) | Starting Method | Line Number |
| 5.47 | .... | 1.99 | .... | GM | .... | 2-71 | 2 2-4½x5 | 142 | 1800 | 14.5 | I | 3 | 3½ | O | .... | No | GM | Uni | GM | P | Pu | A-R | SP | SG | 12 | 8¾ | 963 | Clu | 3¾ | 37 | 8 | 20 | 12 | Ele | 1 |
| .... | .... | 1.99 | .... | GM | .... | 3-71 | 2 3-4½x5 | 213 | 1500 | 21.7 | I | 4 | 3½ | O | .... | No | GM | Uni | GM | P | Pu | Aub. | SP | SG | 12 | 8¾ | 889 | Clu | 5¼ | 31 | 11 | 26 | 7 | Ele | 2 |
| 4.82 | 6.03 | 1.85 | 4.15 | GM | .... | 4-71 | 2 4-4½x5 | 284 | 1600 | 28.9 | I | 5 | 3½ | O | .... | No | GM | Uni | GM | P | Pu | Roc. | SP | SG | 13⅝ | 10 | 930 | Clu | 9¾ | 44 | 13 | 28 | 8 | Ele | 3 |
| .... | .... | ‡‡ | .... | GM | .... | 6-71 | 2 6-4½x5 | 426 | 1750 | 43.4 | I | 7 | 3½ | O | .... | No | GM | Uni | GM | P | Pu | TD. | *SP | SG | 20 | 15 | 430 | Clu | 13 | 120 | 20 | 39 | 30 | Ele | 4 |
| 5.10 | .... | 2.10 | .... | Own. | .... | D2 | 4 4-4x5 | 252 | 1525 | 25.6 | I | 5 | 2¾ | D | .... | .... | Own | Don | Own | P | Pu | Own. | SP | SG | 12 | 7½ | 850 | Clu | 7¾ | 20 | 15 | 8 | 4 | GE | 5 |
| 5.40 | .... | 1.90 | .... | Own. | .... | D4 | 4 4-4¼x5½ | 350 | 1400 | 32.4 | I | 5 | 3½ | D | .... | .... | Own | Don | Own | P | Pu | Own. | SP | SG | 12 | 8½ | 840 | Clu | 11 | 30 | 17 | 20 | 7 | GE | 6 |
| 5.80 | .... | 1.80 | 5.40 | Own. | .... | D6 | 6 4-4½x5½ | 525 | 1400 | 48.6 | I | 7 | 3½ | D | .... | .... | Own | Don | Own | P | Pu | Own. | SP | SG | 13½ | 13 | 913 | Clu | 12¼ | 48 | 18 | 30 | 11 | GE | 7 |
| 6.00 | .... | 1.80 | 5.40 | Own. | .... | D7 | 4 4-5¼x8 | 831 | 1000 | 52.9 | I | 5 | 3¾ | D | .... | .... | Own | Don | Own | P | Pu | Own. | SP | SG | 17½ | 15 | 692 | Clu | 18 | 65 | 22 | 40 | 22 | GE | 8 |
| 4.80 | .... | 2.20 | 3.70 | Own. | .... | D8 | 6 5-5¼x8 | 1246 | 1000 | 79.3 | I | 7 | 3¾ | D | .... | .... | Own | Don | Own | P | Pu | Own. | SP | SG | 14½ | 15 | 846 | Clu | 28 | 89 | 34 | 42 | 28 | GE | 9 |
| 5.41 | .... | 1.73 | .... | Own. | .... | 6 | 4 4-3¾x5½ | 248 | 1450 | 24.0 | I | 3 | 2¾ | G | D,K | Own | Own | Don | Own | P | Pu | Roc. | SP | SG | 12½ | 8½ | 811 | Clu | 9¼ | 20 | 9 | 16 | 1 | HE | 10 |
| 5.41 | .... | 1.73 | .... | Own. | .... | D-6 | 4 4-3¾x5½ | 248 | 1450 | 24.0 | I | 6 | 3¾ | O | .... | Own | Own | Don | Own | P | Pu | Roc. | SP | SG | 12½ | 8½ | 811 | Clu | 10½ | 20 | 9 | 16 | 1 | HE | 11 |
| 5.30 | .... | 1.75 | .... | Own. | .... | 9 | 4 4-4.4x5½ | 334 | 1400 | 31.0 | I | 3 | 3½ | G | D, K | Own | Own | Don | Own | P | Pu | Roc. | SP | SG | 11 | 8½ | 878 | Clu | 12 | 31 | 11 | 22 | 1½ | HE | 12 |
| 5.30 | .... | 1.75 | .... | Own. | .... | D-9 | 4 4-4.4x5½ | 334 | 1400 | 31.0 | I | 5 | 4½ | O | .... | Own | Own | Don | Own | P | Pu | Roc. | SP | SG | 11 | 8½ | 878 | Clu | 13 | 31 | 11 | 22 | 1½ | HE | 13 |
| 4.38 | 5.66 | 1.58 | 3.38 | Own. | .... | D-14A | 4 4-4½x6½ | 461 | 1400 | 36.1 | I | 5 | 3¾ | O | .... | Own | Own | Don | Own | P | Pu | Roc. | SP | SG | 11¾ | 11 | 875 | Clu | 19 | 45 | 16 | 24 | 3 | HE | 14 |
| 4.64 | 5.73 | 1.67 | 3.54 | Own. | .... | D-18A | 4 6-4½x6½ | 691 | 1350 | 54.1 | I | 7 | 3½ | O | .... | Own | Own | Don | Own | P | Pu | Roc. | SP | SG | 13¼ | 12 | 844 | Clu | 26 | 60 | 26 | 30 | 5½ | Ele | 15 |
| 4.05 | ^^ | ‡‡ | ‡‡ | Own. | .... | D-24 | 4 6-5¼x7 | 1090 | 1375 | 79.3 | I | 7 | 4½ | O | .... | DR | Own | Don | Own | P | Pu | Roc. | DP | SG | .... | .... | .... | PL | 37 | 85 | 30 | 44 | 9 | Ele | 16 |
| .... | .... | 2.35 | .... | Herc. | .... | IXK3 | 4 4-3½x4 | 123 | 1700 | 15.6 | L | 3 | 2 | G | K, D | Wi | Til | Vor | Han | P | TS | Lg. | SP | SG | 8½ | 6½ | 1038 | Dif | 2¾ | 12 | 6 | 8 | ¾ | HC* | 17 |
| .... | .... | 1.38 | .... | Cont. | .... | F226 | 4 6-3⅛x4⅜ | 226 | 1530 | 26.3 | L | 4 | 2⅛ | G | K | Boe | Til | Vor | Novi | P | Pu | Lg. | DP | SG | 10½ | 8½ | 1130 | Dif | 5 | 18 | 8 | 32 | ** | HC* | 18 |
| .... | .... | 1.38 | .... | Herc. | .... | DOOC | 4 4-4½ | 226 | 1530 | 25.6 | I | 5 | 3 | O | .... | .... | Bos | Vor | Bos | P | Pu | Lg. | DP | SG | 10½ | 8½ | 1130 | Dif | 5½ | 18 | 13 | 32 | ** | Ele | 19 |
| .... | .... | 1.80 | 3.44 | Herc. | .... | JXD | 4 6-4¼ | 320 | 1530 | 36.4 | L | 7 | 2½ | G | K | DR | Til | Vor | Pie | P | Pu | Lg. | DP | SG | 12 | 8½ | 1150 | Dif | 6 | 23 | 7 | 36 | ** | Ele | 20 |
| .... | .... | 1.80 | 3.45 | Herc. | .... | DJXC | 4 6-3¾x4½ | 298 | 1400 | 33.7 | I | 7 | 3 | O | .... | .... | Bos | Vor | Bos | P | Pu | Lg. | DP | SG | 12 | 8½ | 1050 | Dif | 5 | 23 | 12 | 33 | ** | Ele | 21 |
| .... | .... | 2.19 | 3.94 | Herc. | .... | RXC | 4 6-4½x5½ | 529 | 1300 | 51.3 | L | 7 | 3 | G | .... | DR | Til | Vor | Pie | P | Pu | Lg. | DP | SG | 13 | 11 | 960 | Dif | 10¼ | 30 | 12 | 52 | ** | Ele | 22 |
| .... | .... | 2.02 | 3.64 | Herc. | .... | DRXB | 4 6-4½x5½ | 474 | 1200 | 45.9 | I | 7 | 3½ | O | .... | .... | Bos | Vor | Bos | P | Pu | Lg. | DP | SG | 13 | 11 | 884 | Dif | 10½ | 30 | 16 | 52 | ** | Ele | 23 |
| .... | .... | 1.58 | 2.83 | Herc. | .... | DFXE | 4 6-5½x6 | 895 | 1300 | 75.9 | I | 7 | 4½ | O | .... | .... | Bos | Vor | Bos | P | Pu | Lg. | SP | PL | 24½ | 15 | 535 | Dif | 15½ | 60 | 34 | 144 | ** | Ele | 24 |
| .... | .... | 1.06 | 6.75 | Cont. | .... | .... | 4 4-3x4½ | 124 | 1900 | 31.2 | L | 3 | 2¼ | G | K | Al | Zen | Don | Novi | P | Pu | Roc. | MD | .... | 8 | 6 | 1800 | Clu | 3½ | 10 | 4 | 14 | 6½ †† | Ele | 25 |

DP—Double Plate, Dry.
DR—Delco-Remy Div.
Ele—Electric. G—Gasoline.
GE—Independent Gas Engine.
GM—General Motors Corp.
Han—Handy Governor Corp.
HC—Hand Crank.
Herc—Hercules Motor Corp.
HE—Hand Crank or Electric.
I—In head (Valves).
K—Kerosene. L—"L" Head.
Lg—Long Mfg. Div.
MD—Multiple disk.
No—No or None.
Novi—Novi Equipment Co.
O—Diesel fuel. Op—Optional.
P—Pressure.
Pie—Pierce Governor Corp.
Pl—Planetary. Pu—Pump.
Roc—Rockford Drilling Mach. Div.
SG—Spur Gear.
SP—Single Plate, Dry.
St—Standard.
TD—Twin Disc Clutch Co.
Til—Tillotson Mfg. Co.
TS—Thermo-Syphon.
Uni—United Air Cleaners Div
Vor—Vortox Mfg. Co.
Wi—Wico Electric Co.
Zen—Zenith Carburetor Div.

***For Directory of the Manufacturers listed above, see page 190.***

# Class I Intercity Bus Companies

## Average Bus Miles Operated and Number of Revenue Passengers Carried

per Class I Intercity Passenger Carrier*

| Year | Number of Companies | Average Bus Miles per Carrier | | | Average Revenue Passengers per Carrier | | |
|---|---|---|---|---|---|---|---|
| | | Intercity | Local and Suburban | Charter or Special Service | Intercity | Local and Suburban | Charter or Special Service |
| 1945 | 231 | 3,725,018 | 237,922 | 65,411 | 1,881,427 | 531,558 | 30,476 |
| 1946 | 254 | 3,796,174 | 239,370 | 69,764 | 1,707,595 | 476,416 | 28,425 |
| 1947 | 253 | 3,867,457 | 220,301 | 88,033 | 1,629,940 | 428,703 | 34,273 |
| 1948 | 260 | 4,042,377 | 195,223 | 107,650 | 1,618,243 | 408,791 | 37,382 |
| 1949 | 264 | 3,885,617 | 185,650 | 112,958 | 1,457,547 | 358,799 | 36,857 |
| 1950† | 183‡ | 3,643,122 | 171,242 | 116,110 | 1,321,742 | 314,836 | 32,074 |

* Based on data from Interstate Commerce Commission. † First nine months. ‡ Status of a Class I carrier changed from $100,000 to $200,000 gross operating revenue—January, 1950.

## Intercity Passenger-Miles Traveled, by Mode of Transportation*

(000,000,000 omitted)

| Year | Total Intercity Travel | Private Automobiles | | Public Carriers | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Railroads | | Intercity Buses | | Air Lines | | Waterways | |
| | | Miles | % of Total | Miles | % of Total | Miles | % of Total | Miles | % of Total | Miles | % of Total |
| 1940 | 280.5 | 245.8 | 87.6 | 20.8 | 7.4 | 11.6 | 4.1 | 1.0 | 0.4 | 1.3 | 0.5 |
| 1941 | 307.6 | 264.3 | 85.9 | 26.5 | 8.6 | 13.6 | 4.4 | 1.4 | 0.5 | 1.8 | 0.6 |
| 1942 | 274.7 | 199.6 | 72.7 | 50.3 | 18.3 | 21.5 | 7.8 | 1.4 | 0.5 | 1.9 | 0.7 |
| 1943 | 262.6 | 147.1 | 56.0 | 84.6 | 32.2 | 27.4 | 10.4 | 1.6 | 0.7 | 1.9 | 0.7 |
| 1944 | 274.5 | 151.3 | 55.1 | 92.2 | 33.6 | 26.5 | 9.7 | 2.3 | 0.8 | 2.2 | 0.8 |
| 1945 | 309.3 | 179.8 | 59.9 | 88.1 | 29.3 | 26.9 | 9.0 | 3.4 | 1.1 | 2.1 | 0.7 |
| 1946 | 347.8 | 253.6 | 72.9 | 60.4 | 17.4 | 25.6 | 7.3 | 5.9 | 1.7 | 2.3 | 0.7 |
| 1947 | 345.6 | 273.9 | 79.0 | 40.8 | 11.8 | 23.9 | 6.9 | 6.1 | 1.8 | 1.8 | 0.5 |
| 1948 | 360.5 | 287.4 | 79.7 | 41.9 | 11.6 | 23.5 | 6.5 | 5.9 | 1.7 | 1.7 | 0.5 |
| 1949 | 447.6 | 382.8 | 85.5 | 35.7 | 8.0 | 21.2 | 4.7 | 6.8 | 1.5 | 1.2 | 0.3 |

* Based on data from NAMBO and Interstate Commerce Commission.

# 1951 U. S. AND BRITISH MILITARY AIRCRAFT

| MAKE AND MODEL | POPULAR NAME | Type | Number of Crew | ENGINE: Make and Model | ENGINE: Number Used | ENGINE: Total Take-off Hp. at Specified RPM | ENGINE: Total Take-off Thrust at Specified RPM | Fuel Capacity (Gallons) | Oil Capacity (Gallons) | DIMENSIONS (Ft. & In.): Span | DIMENSIONS (Ft. & In.): Overall Length | DIMENSIONS (Ft. & In.): Height (Tail Position) | DIMENSIONS (Ft. & In.): Wing Area (Gross) Sq. Ft. | DIMENSIONS (Ft. & In.): Aileron Area (Sq. Ft.) | WEIGHTS (Lb.): Empty | WEIGHTS (Lb.): Useful Load | WEIGHTS (Lb.): Gross | WEIGHTS (Lb.): Pay Load | PERFORMANCE: Maximum Speed at Altitude | PERFORMANCE: Cruising Speed at Altitude | PERFORMANCE: Range in Miles at Cruising Speed | PERFORMANCE: Initial Climb (Feet per Minute) | PERFORMANCE: Service Ceiling with Normal Load (Feet) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **UNITED STATES** | | | | | | | | | | | | | | | | | | | | | | | |
| Beech 45 | Mentor | T | 2 | Cont E-225-8 | 1 | 225-2600 | None | 50 | 3 | 32' 10" | 25' 10" | 9' 7" | 177.6 | 11.5 | 2055 | 695 | 2750 | | 198 SL | 167 10000 | 770 | 1710 | 21200 |
| Boeing C-97A | Stratofreighter | TC | 5 | P&W R-4360-35 | 4 | 14000- | None | 7790 | | 141' 3" | 101' 4" | 38' 3" | | | 78000 | 70000 | 148000 | 53000 | 378 | 339*- | | | 40000 |
| B-47A | Stratojet | MB | 3 | GE J-47 | 6 | None | 31200- | | | 116' 0" | 108' 0" | 28' 0" | | | | | 185000 | 20000* | 600* | | 20300* | | 35030* |
| B-50D | Superfortress | MB | 11 | P&W R-4360-35 | 4 | 14000 | None | | | 141' 3" | 99' 0" | 32' 9" | | | | | 164500 | 28000 | 402* | 300*- | 6000 | | 40000 |
| Cessna L-19 | | OR | Data | Restricted | | | | | | | | | | | | | | | | | | | |
| LC-126 | | ASR | Data | Restricted | | | | | | | | | | | | | | | | | | | |
| Chance Vought F4U-5N | Corsair | NFB | 1 | P&W R-2800-32 | 1 | | None | 234 | 27½ | 41' | 34' 6" | 13' 2" | 314.0 | | 10208 | 3218 | 13426 | | | | | | |
| F7U-1 | Cutlass | F | 1 | West J-34WE-32 | 2 | None | | | | | | | | | | | | | | | | | |
| Chase XC-123 | Avitruc | TC | 2 | P&W R-2800-CB-15 | 2 | 4200-2600 | None | | | 110' 0" | 77' 1" | 32' 8" | 1223.2 | 83.3 | 26800 | 27200 | 54000 | | 245 | 205 | 2110 | 1250 | 29300 |
| YC-122C | Avitruc | TC | 2 | Wr R-1820-101 | 2 | 2850-2700 | None | | | 95' 8" | 61' 8" | 24' 8" | 812.8 | 46.7 | 19000 | 13000 | 32000 | | 240 | 200 | 2900 | 1340 | 29100 |
| Convair B-36D | | HB | 15 | (a) | 10 | 21000-2700 | 20800- | 21000 | 1200 | 230' 0" | 162' 0" | 46' 9" | 4772.0 | 240.0 | | | 358000 | | 435* | | 12000 | | 45000* |
| XP5Y-1 | | P | 12 | All XT-40-A-4a | 4 | 22000- | | | | | | | | | | | 120000* | | 350* | | | | |
| XF-92A | Convair Delta | I | 1 | All J-33-A-29 | 1 | None | | | | 31' 0" | 44' 0" | 15' 0" | 425.0 | | | | 15000 | | | | | | |
| T-29 | | T | 3-4 | P&W R-2800-CA-18 | 2 | 4800- | None | 1000 | 45 | 91' 9" | 74' 8" | 26' 11" | 817.0 | 44.0 | 28973 | 11038 | 40011 | | 318-13530 | 260-13530 | 1580 | 1495 | 26100 |
| Douglas C-124A | Globemaster II | TC | 6 | P&W R-4360-20W | 4 | 14000-2700 | None | 11000 | 330 | 173' 3" | 127' 1" | 48' 3" | 2510.0 | 132.4 | 96191 | 78681 | 174872 | 52165 | | | 6330 | | |
| F3D | Skyknight | NF | 2 | West J-34 | 2 | None | | | | | | | | | | | | | | | | | |
| AD | Skyraider | A | 1-2-3 | Wr R-3350-26W | 1 | 2700- | None | | | 50' 0" | 38' 10" | 15' 7" | 400.0 | | 10519 | 5546 | 16065 | | | | | | |
| Fairchild C-119 | Packet | TC | 5 | P&W R-4360-20W | 2 | 7000-2700 | None | 2624 | 120 | 109' 3" | 85' 10" | 26' 8" | 1447.0 | 112.0 | 38012 | 35988 | 64000 | 30000 | 266-18000 | | | 1130 | 23885 |
| XC-120 | Packplane | TC | 5 | P&W R-4360 | 2 | 6500-2700 | None | | | 109' 4" | 83' 0" | 24' 11" | | | | | 64000 | 20000 | 250*-18000 | | | | 25300* |
| Grumman SA-16A&UF-1 | Albatross | ASR | 4-6 | Wr R-1820 | 2 | 2850-2700 | None | | | 80' 0" | 61' 0" | | | | | | 28000 | | 265- | | 2890 | | |
| AF-ZW&AF-ZS | Guardian | AS | | P&W R-2800 | 1 | 2300- | None | | | | | | | | | | | | | | | | |
| F9F-2 | Panther | F | 1 | P&W J-42-P-8 | 1 | None | 8000- | | | | | | | | | | | | | | | | |
| F9F-5 | Panther | F | 1 | P&W J-48 | 1 | None | | | | | | | | | | | | | | | | | |
| Lockheed T-33 | | T | | | 1 | None | | | | 39' 0" | 38' 0" | 12' 0" | 238.0 | | | | 12200 | | | | | | |
| F-94 | | I | | | | None | | | | 39' 0" | 40' 0" | 13' 0" | 238.0 | | | | 12200 | | | | | | |
| P2V-4 | Neptune | P | | | | | | | | 100' 0" | 78' 0" | 28' 0" | 1000.0 | | | | 78000 | | | | | | |
| Martin P5M-1 | Marlin | AS | | Wr 3350 | 2 | | None | | | | | | | | | | | | | | | | |
| XB-51 | | MB | 2 | GE J-47 | 3 | None | 15600*- | | | 55' 0" | 80' 0" | | | | | | | | | | | | |
| P4M-1 | Mercator | AS | 9 | (b) | 4 | 6500- | 8000*- | | | 114' 0" | 94' 0" | 35' 0" | | | | | | | | | 2000* | | |
| McConnell F2H-1, F2H-2 | Banshee | F | 1 | West J-34 | 2 | None | 6000- | 677 | | 41' 0" | 39' 0" | 14' 0" | | | | | 14000 | | 600* | | 2000* | 9000* | 40000* |
| North American AJ-1 | | A | 3 | (c) | 3 | 4600- | 4000*- | | | | | | | | 34000 | | | | 350* | | | | |
| F-86E | Sabre | F | 1 | GE J-47A | 1 | None | 5200- | | | 37' 0" | 37' 0" | 14' 0" | | | | | 13715 | | 700* | | 500* | | 40000* |
| T-6G | Texan | T | 2 | P&W R-1340-AN-1 | 1 | 600- | None | 140 | | 42' 0" | 29' 6" | 10' 10" | 256.1 | 11.4 | 4271 | 1346 | 5617 | | 212 | 146 | 870 | 1513 | 21750 |
| F-86D | Sabre Series | I | 1 | GE J-47A* | 1 | None | 5200*- | | | 37' 0" | 41' 0" | 14' 0" | | | | | | | | | | | |
| T-28 | | T | 2 | Wr R-1300-1 | 1 | 800- | None | 125 | | 40' 1" | 32' 0" | 12' 8" | 268.0 | 13.3 | 5111 | 1254 | 6365 | | 288-5900 | 190 | 1009 | 2570 | 29300 |
| Northrup F-89 | Scorpion | F-I | 2 | All J-35* | 2 | None | | | | 56' 2" | 53' 5" | 17' 8" | 606.0 | | | | 30000* | | 600*-40000* | | | | 40000* |
| Republic XF-91 | | I | 1 | GE J-47* | 1 | None | 5200- | | | 30' 0" | 49' 0" | | | | | | | | | | | | |
| F-84E | Thunderjet | FB | 1 | All J-35A-17 | 1 | None | 5000-7800 | | | 37' 0" | 38'* | 12'* | | | 10000 | | | | 630-SL | | 850 | | 45000* |
| Ryan L-17B | | L | 1 | Cont E-185-3 | 1 | 205-2600 | None | 59½ | 2½ | 33' 4" | 27' 3" | 8' 8" | 185.0 | 10.3 | 1838 | 912 | 2750 | | 156 SL | 150 3500 | 750 | 830 | 15830 |
| **BRITISH** | | | | | | | | | | | | | | | | | | | | | | | |
| Armstrong-Whitworth NF-11 | Meteor | NF | 2 | RR Derwent | 2 | None | | | | 43' 0" | 48' 6" | 13' 8" | 374.0 | 26.7 | | | | | | | | | |
| Auster T-MK7 | | T | 3 | DH Gypsy Major | 1 | 145-2550 | None | 29 | 3¼ | 36' 0" | 23' 4" | 8' 8" | 184.5 | 18.0 | 1530 | 680 | 2210 | | 122 1000 | 107 1030 | 375 | 680 | 12000 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blackburn | GAL-60 | | TC | | 3 | Br | Hercules | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| | YA-5 | | AS | | 3 | RR | Griffon | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| | YB-1 | | AS | | | A/S | Double Mamba | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| DeHaviland | DH-115 | Vampire Trainer | T | | 2 | DH | Goblin 3 | 1 | None | 3350 | 10750 | 638 | 15 | 38' 0" | 34' 6" | 6' 3" | 182' 0" | 99' 2" | 33' 0" | 2916.0 | 168.0 | | | | | | | | | | |
| | DH-113 | Vampire | F | | 2 | DH | Goblin 3 | 1 | None | 3350 | 10750 | 538 | 15 | 38' 0" | 34' 7" | 6' 3" | 44' 2" | 42' 5" | 16' 9" | | | | | | | | | | | | |
| | DH-112, Mk 1 | Venom | F | | 1 | DH | Ghost | 1 | | | | | | 38' 4" | 31' 10" | 6' 3" | 49' 2" | 42' 5" | 16' 9" | | | | | | | | | | | | |
| Handley Page | | Hastings | T | TC | 5 | Br | Hercules | 4 | | 8360 | | 3806 | 139 | 113' 0" | 81' 8" | 22' 6" | 148' 0" | 99' 1" | 37' 0" | 1408.0 | 75.4 | 48934 | 31126 | 80200 | 20311 | 301 | 6200 | 281 | 11500 | 1560 | 1193 | 20570 |
| | | C MK2 | T | TC | 5 | Br | Hercules | 4 | | 6700 | | 3806 | 139 | 113' 0" | 81' 8" | 22' 6" | 148' 0" | 99' 1" | 37' 0" | 1408.0 | 75.4 | 48934 | 31126 | 80200 | 20311 | 318 | 2230 | 289 | 15000 | 1871 | 785 | 20533 |
| | | Hastings | T | TC | 5 | Br | Hercules | 4 | | 6700 | | 3806 | 139 | 113' 0" | 81' 8" | 22' 6" | 148' 0" | 99' 1" | 37' 0" | 1408.0 | 75.4 | 48934 | 31126 | 80200 | 20311 | 490 | 20000 | 415 | 21000 | 1150 | 4300 | 34033 |
| Hawker | | Sea Fury | F | | 1 | Br | Centaurus | 1 | | 2470 | 2700 | 240 | 14 | 38' 0" | 40' 0" | 10' 6" | 44' 0" | 42' 0" | 16' 0" | 278.0 | 20.3 | | | | | | | | | | |
| | FB-MK11 | Sea Hawk | F | | 1 | RR | Centaurus | 1 | | 8-J- | 2700 | 240 | 14 | 38' 0" | 40' 0" | 10' 6" | 44' 0" | 42' 0" | 16' 0" | 278.0 | 20.3 | | | | | | | | | | |
| | | | | | | | None 4 | | None | 5800 | 12300 | | | | | | | | | | | | | | | | | | | | |
| Percival | | Sea Prince | T | 1-2 | | Av | Leonides | 2 | None | | | 271 | 15 | 56' 0" | | 16' 1" | 77' 6" | 17' 6" | 4' 0" | 385.0 | | | | | | | | | | | |
| A. V. Roe | | Avro Shackleton | RB | 10 | | RR | Griffon | 4 | None | | | | | 120' 0" | | | 89' 6" | 30' 10" | | 1421.0 | | 87030 | 10400 | | | 171 | 5033 | 153 | 6030 | 610 | 700 | 17033 |
| | Mark 1 | Avro Ashton | | | 4 | RR | | 2 | None | 20000 | | 3720 | | 120' 0" | | | 89' 6" | 30' 10" | | 1421.0 | 31.2 | 8300 | 2200 | | | | | | | | |
| | Mark 19-22 | Avro Anson | T | | 2 | A/S | Cheetah XV | | 840 | | | 168 | 15 | 48' 0" | | | 50' 0" | 17' 0" | | 415.0 | | | | | | | | | | | |
| Saunders-Roe | SR.Al | | F | | 1 | M-V | Beryl | | None | 7700 | | | | | | | | | | | | | | | | | | | | |
| Vickers-Armstrong | F-Mark 1 | Attacker | F-I | | 1 | RR | None 3 | 1 | None | 8000 | | 382 | 1 | 36' 11" | | 9' 6" | 37' 6" | 9' 6" | | 226.4 | 17.2 | 7788 | 3992 | 11750 | | 505 | SL | 518 | 12630 | 899 | 6353 | 45933 |
| | | Seagull | ASR | | 3 | RR | Griffon | 1 | 2800 | 2750 | | 342 | 11 | 50' 0" | | | 44' 1" | 18' 4" | | 432.0 | 44.6 | 10510 | 3980 | 14500 | | 283 | 11830 | 131 | 2033 | 675 | 1433 | 23700 |
| | 538 | Swift | I | | | RR | None 3 | | None | 5000 | | 480 | | 31' 8" | | 42' 11" | 112' 6" | | | 295.0 | | | | | | | | | | | |
| | C-MK 1 | Valetta | TC | | 4 | Br | Hercules | 2 | 3950 | 2800 | | 888 | 31 | 89' 3" | | 22' 6" | 87' 6" | 23' 11" | | 974.0 | 76.1 | 25545 | 10955 | 36500 | | 291 | 5933 | 260 | 10030 | 1503 | 1300 | 22200 |
| | VC-2 | Varsity | T | | 11 | Br | Hercules | 2 | 3950 | 2800 | | 900 | 46 | 89' 3" | | 22' 6" | 87' 6" | 23' 11" | | 974.0 | 53.6 | 27000 | 10800 | 37530 | | 293 | 5933 | 240 | 10000 | 1500 | 1900 | 28700 |
| Westland | MK 11 | Wyvern | F | | 1 | A/S | Python | 1 | | | | | | 42' 0" | | | | | | | | | | | | | | | | | |

ABBREVIATIONS:

- With afterburner
- Plus
- Six Pratt & Whitney R-4360-41 engines and four General Electric J-47 engines
- (b)—Two Pratt & Whitney R-4360-20W engines and two Allison J-33-A10 engines
- (c)—Two Pratt & Whitney R-2800 engines
- A—Armstrong-Siddeley Mamba engine and one Allison J-33 engine
- Ars—Armstrong-Siddeley Motors, Ltd.
- AS—Anti-submarine
- ASR—Air-sea rescue
- Av—Avro, Ltd.
- Br—Bristol Aeroplane Co., Ltd.
- Cont—Continental Motor Corp.
- DH—De Havilland Aircraft Co., Ltd.
- Aes—Allison Div.
- F—Fighter
- FB—Fighter bomber
- FR—Fighter reconnaissance
- GE—General Electric Co.
- HB—Heavy bomber
- I—Interceptor
- L—Liaison
- MB—Medium bomber
- M-V—Marcel Dassault-Vickers
- NF—Night fighter
- NFB—Night fighter-bomber
- OR—Observation and reconnaissance
- P—Patrol
- P & W—Pratt & Whitney Aircraft Div.
- RB—Reconnaissance bomber
- RR—Rolls Royce, Ltd.
- S.L.—Sea Level
- T—Trainer
- TC—Troop and cargo transport
- Westl—Westinghouse Electric Corp.
- Wr—Wright Aeronautical Corp.

*For Directory of the Manufacturers listed above, see page 190.*

# Transit Bus Data—Number in Use and Deliveries

(American Transit Association)

## Number of Transit Vehicles in Use by Types

| Year | Railway: Surface | Railway: Subway and Elevated | Railway: Total | Trolley Coach | Motor Bus | Grand Total |
|---|---|---|---|---|---|---|
| 1940 | 26,630 | 11,032 | 37,662 | 2,802 | 35,000 | 75,464 |
| 1941 | 27,092 | 10,578 | 37,670 | 3,029 | 39,400 | 79,999 |
| 1942 | 27,230 | 10,278 | 37,508 | 3,385 | 46,000 | 86,893 |
| 1943 | 27,250 | 10,255 | 37,505 | 3,501 | 47,100 | 88,106 |
| 1944 | 27,180 | 10,219 | 37,399 | 3,561 | 48,400 | 89,360 |
| 1945 | 26,630 | 10,317 | 36,897 | 3,711 | 49,670 | 90,278 |
| 1946 | 24,730 | 9,429 | 34,159 | 3,916 | 52,450 | 90,525 |
| 1947 | 21,607 | 9,370 | 30,977 | 4,707 | 56,917 | 92,601 |
| 1948 | 17,578 | 9,456 | 27,034 | 5,687 | 58,540 | 91,261 |
| 1949 | 15,505 | 9,869 | 25,374 | 6,838 | 57,035 | 88,747 |
| 1950† | 14,700 | 9,810 | 24,510 | 6,512 | 55,900 | 86,922 |

† Preliminary.

## New Passenger Vehicles Delivered to Transit Companies

| Year | Railway Cars: Surface | Railway Cars: Subway and Elevated | Railway Cars: Total | Trolley Coaches | Motor Buses | Grand Total |
|---|---|---|---|---|---|---|
| 1940 | 463 | 15 | 478 | 310 | 3,984 | 4,772 |
| 1941 | 462 | ... | 462 | 411 | 5,600 | 6,473 |
| 1942 | 284 | ... | 284 | 336 | 7,200 | 7,820 |
| 1943 | 32 | ... | 32 | 117 | 1,251 | 1,400 |
| 1944 | 284 | ... | 284 | 55 | 3,807 | 4,146 |
| 1945 | 332 | ... | 332 | 161 | 4,441 | 4,934 |
| 1946 | 421 | ... | 421 | 266 | 6,462 | 7,150 |
| 1947 | 626 | 2 | 628 | 956 | 12,029 | 13,613 |
| 1948 | 478 | 206 | 684 | 1,430 | 7,009 | 9,123 |
| 1949 | 273 | 411 | 684 | 677 | 3,358 | 4,719 |
| 1950 | 4 | 199 | 203 | 179 | 2,500 | 2,882 |

## New Transit Buses Delivered—by Seating Capacity—1943 to 1950

| Year | Seating Capacity: 29 or less | 30 to 39 | 40 or more | Total Buses |
|---|---|---|---|---|
| 1943 | 847 | 179 | 225 | 1,215 |
| 1944 | 2,423 | 369 | 1,015 | 3,807 |
| 1945 | 1,757 | 1,183 | 1,501 | 4,441 |
| 1946 | 1,849 | 2,429 | 2,185 | 6,463 |
| 1947 | 1,951 | 3,717 | 6,361 | 12,029 |
| 1948 | 523 | 2,144 | 4,342 | 7,009 |
| 1949 | 289 | 1,344 | 1,725 | 3,358 |
| 1950 | n.a. | n.a. | n.a. | 2,500 |

n.a. Not available.

## Total Transit Passengers Carried in Urban Service—by Types of Vehicles—1940 to 1950

(Millions of Persons)

| Year | Railway: Surface | Railway: Subway and Elevated | Railway: Total | Trolley Coach | Motor Bus | Grand Total |
|---|---|---|---|---|---|---|
| 1940 | 5,943 | 2,382 | 8,325 | 534 | 4,239 | 13,098 |
| 1941 | 6,081 | 2,421 | 8,502 | 652 | 4,931 | 14,085 |
| 1942 | 7,290 | 2,566 | 9,856 | 899 | 7,245 | 18,000 |
| 1943 | 9,150 | 2,656 | 11,806 | 1,175 | 9,019 | 22,000 |
| 1944 | 9,516 | 2,621 | 12,137 | 1,234 | 9,646 | 23,017 |
| 1945 | 9,426 | 2,698 | 12,124 | 1,244 | 9,886 | 23,254 |
| 1946 | 9,027 | 2,835 | 11,862 | 1,311 | 10,199 | 23,372 |
| 1947 | 8,096 | 2,756 | 10,852 | 1,356 | 10,332 | 22,540 |
| 1948 | 6,506 | 2,606 | 9,112 | 1,528 | 10,728 | 21,368 |
| 1949 | 4,839 | 2,346 | 7,185 | 1,661 | 10,162 | 19,008 |
| 1950 | 4,162 | 2,217 | 6,379 | 1,619 | 9,302 | 17,300 |

# 1951 U. S. AND BRITISH CIVIL AIRCRAFT

| MAKE AND MODEL | Type | A. T. C. Number | Number of Crew | Number of Seated Passengers | ENGINE: Make and Model | Number Used | Total Take-off Hp. at Specified RPM | Fuel Capacity (Gal.) | Oil Capacity (Gal.) | DIMENSIONS (Ft. & In.): Span | Overall Length | Height (Taxi Position) | Wing Area (Gross) Sq. Ft. | Aileron Area (Sq. Ft.) | WEIGHTS (Lb.): Empty | Useful Load | Gross | Pay Load | PERFORMANCE: Maximum Speed at A ltitude | Cruising Speed at Altitude | Range in Miles at Cruising Speed | Initial Climb (Ft. per Min.) | Service Ceiling with Normal Load (Ft.) | Fuel Consumption at Cruising Speed (Lb. per Hr.) | PROPELLERS: Make | Type | Diameter (Ft. & In.) | Number of Blades |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Atlas H-10 | P-L | | 1 | 3 | Lyco G0435C | 1 | 260 | 72 | 3 | 35'9" | 28'0" | 8'0" | 185.0 | | 1980 | 1420 | 3400 | 432 | 200 SL | 185 SL | 1000 | 2500 | 20000 | 64.1 | H | CS | 8'3" | 2 |
| Beech 50 | PC-L | | 1 | 5 | Lyco G0435C2 | 2 | 570 3400 | 135 | 3 | 45'3" | 31'6" | 11'4" | 277.0 | 13.7 | 3750 | 1750 | 5500 | | 202 2500 | 193* 10000 | 1000 | 1500 | 19000 | 160.9 | Own | CS | 8'0" | 2 |
| B-35 | P-L | 777 | 1 | 3 | Cont. E-185-8 | 1 | 196 2450 | 39 | 2½ | 32'10" | 25'2" | 6'6" | 177.6 | 11.5 | 1575 | 1075 | 2650 | | 184 SL | 170-8000 | 750 | 890 | 17100 | 57.2 | Own | CS | 7'4" | 2 |
| D18S | P-L | A-765 | 1-2 | 8 | P&W R985 | 1 | 450 2300 | 200 | 17 | 47'7" | 33'11" | 9'2" | 349.0 | 22.6 | 5770 | 2380 | 8750 | | 230 5000 | 211-10000 | 985 | 1190 | 20500 | 278.0 | HS | H-F | 8'3" | 2 |
| Bellanca 14-13-3 | P-L | 773 | 1 | 3 | Frank | 1 | 150 2600 | 40 | 3 | 34'2" | 21'4" | 6'2" | 161.5 | | 1250 | 900 | 2150 | | 170 SL | 150 SL | 725 | | 22000 | | A | CS | 6'2" | 2 |
| 14-19 | P-L | 1A3 | 1 | 3 | Lyco 0435A | 1 | 190 2550 | 40 | 3 | 34'2" | 23'0" | 6'2" | 161.5 | | 1563 | 1037 | 2600 | | 187 SL | 180-6000 | 680 | 1400 | 21500 | | H | C | 6'6" | 2 |
| 31-42 | PC-LS | 578 | 2 | 6 | P&W R985 | 1 | 450 2300 | 200 | 12½ | 50'6" | 27'11" | 8'6" | 335.0 | | 2954 | 2653 | 5604 | | 170 SL | 150 SL | 1360 | 900 | 20000 | | HS | CS | 9'0" | 2 |
| Boeing Stratocruiser | PC-L | 812 | 5-7 | 80 | P&W R-4360 | 4 | 14400 2700 | 7780 | 200 | 141'3" | 110'4" | 38'3" | 1769.6 | | 83500 | 59000 | 142500 | 30000 | 375 25000 | 320 25000 | 3000 | 1100 | 33300 | | C-H | C-F-R | 16'8" | 4 |
| Cessna 140 | P-L | 768 | 1 | 1 | Cont C85 or C90 | 1 | 90 2475 | 25 | 1½ | 33'4" | 21'0" | 6'3" | 159.6 | 17.9 | 900 | 600 | 1500 | 430 | 125* | 105* | | 450 | 15500 | 33.0 | S | Fx | 6'2" | 2 |
| 170 | P-L | 790 | 1 | 4 | Cont C145 | 1 | 145 2700 | 42 | 2 | 36'0" | 25'0" | 6'7" | 175.0 | 17.9 | 1200 | 1000 | 2200 | 780 | 140* | 120* | | 450 | 15500 | 48.0 | S | Fx | 6'1" | 2 |
| 190 | P-L | 790 | 1 | 4 5 | Cont W670-23 | 1 | 240 2700 | 80 | 5 | 36'2" | 27'1" | 7'2" | 218.0 | 12.3 | 2050 | 1300 | 3350 | 780 | 170 7000 | 160 7000 | 700* | 1050 | 16000 | 88.0 | HS | CS | 7'9" | 2 |
| 195 | P-LS | 799 | 1 | 4 5 | Jac R755-A2 | 1 | 300 2700 | 80 | 5 | 36'2" | 27'4" | 7'2" | 218.0 | 12.3 | 2060 | 1290 | 3350 | 770 | 180 7000 | 165 7000 | 700* | 1200 | 18300 | 88.0 | HS | CS | 7'9" | 2 |
| Convair 240 | P-L | 793 | 3-4 | 40 | P&W R2800-CA-18 | 2 | 4800 | 1550 | 45 | 91'9" | 74'8" | 26'11" | 817.0 | 44.0 | 27632 | 14108 | 41790 | 9770 | 347 16000 | 272 16000 | 1840 | 1520 | 26700 | 1240.0 | C-H | F-R | 13'1" | 3 |
| Douglas DC3-1189A | PC-L | | 3 | 31 | Wr R-1820-C9HE | 2 | 2950 2800 | 822 | 59 | 93'0" | 67'8" | 18'3" | 969.0 | 71.9 | 19537 | 11463 | 31000 | 7635 | 270 5900 | 242 10000 | 1425 | 1300 | 22100 | 800.0 | HS | F | 11'6" | 3 |
| DC6A-1135 | C-L | | 3 | 86 | P&W R-2800-CB-16 | 4 | 9600 2800 | 4700 | 166 | 117'6" | 105'7" | 28'8" | 1463.0 | 85.1 | 49767 | 50233 | 100000 | 26689 | 365 18100 | 316 20000 | 3580 | 1130 | 28000 | 2390.0 | HS | F-R | 13'1" | 4 |
| DC6B-1198 | PC-L | | 5 | 52-66 | P&W R-2800-CB-16 | 4 | 9600 2800 | 4700 | 166 | 117'6" | 105'7" | 28'8" | 1463.0 | 85.1 | 54143 | 45857 | 100000 | 22300 | 360 18100 | 316 20000 | 3570 | 1130 | 26000 | 2390.0 | HS | F-R | 13'1" | 4 |
| DC-6B-1225 | PC-L | | 7 | 52 | P&W R-2800-CB-17 | 4 | 10000 2800 | 5380 | 140 | 117'6" | 105'7" | 28'8" | 1463.0 | 85.1 | 56810 | 46180 | 103000 | 16190 | 371 19500 | 314 20000 | 4010 | 1100 | 27900 | 2390.0 | HS | F-R | 13'1" | 4 |
| Funk B85C | P-L | | 1 | 1 | Cont. C85-12 | 1 | 85 | 20 | 1½ | 35'0" | 20'1" | | 157.1 | 11.5 | 893 | 460 | 1350 | 460 | 112* SL | 100* SL | 400 | 800 | 15000 | 29.1 | L | CS | 6'0" | 2 |
| Grumman G-73 | P-A | 783 | 2 | 10 | P&W R1340-S3A1 | 2 | 1200 | | | 66'8" | 48'0" | | 444.0 | 27.4 | 9400 | 3350 | 12750 | | 215 6000 | 180 8000 | 1100 | 1200 | | 291.5 | HS | C | 8'7" | 3 |
| Jamieson J-2-L1 | P-L | | 1 | 2 | Lyco D-235-C1 | 1 | 115 2800 | 29 | 1½ | 29'0" | 20'10" | 6'2" | 123.2 | 7.7 | 800 | 800 | 1600 | | 170 3000 | 150 3000 | 700 | 1050 | 17000 | 35.6 | S | C | 6'2" | 2 |
| Lockheed 749A-79 | P-L | 783 | 5 | 57 | Wr 749C18BD1 | 4 | 10000 2800 | 5810 | 207 | 123'0" | 95'2" | 22'5" | 1650.0 | 99.6 | 60000 | 47000 | 107000 | 22000 | 358 19200 | 323 20000 | 4160 | 1620 | 27300 | 2710.0 | HS | H-F-R | 15'2" | 3 |
| 1049-53 | P-L | | 10 | 66 | Wr 956C18CA1 | 4 | 12800 2900 | 6570 | 260 | 123'0" | 113'7" | 23'0" | 1650.0 | 99.6 | 61945 | 55055 | 120000 | 23340 | 347 17700 | 314 20000 | 4100 | 1710 | 26700 | 3020.0 | HS | H-F-R | 13'7" | 3 |
| 1049C-53 | P-L | | 10 | 66 | Wr 972TC18DA1 | 4 | 12900 2900 | 6570 | 260 | 123'0" | 113'7" | 23'0" | 1650.0 | 99.6 | 68642 | 61358 | 130000 | 20190 | 374 18600 | 335 20000 | 4180 | 1880 | 27630 | 4300.0 | HS | H-F-R | 15'2" | 3 |
| Martin 4-0-4 | P-L | | 3 | 40 | P&W R-2800-CB16 | 2 | 4800 | 1350 | 45 | 93'3" | 74'7" | 28'5" | 864.0 | 41.8 | 27799 | 14665 | 42750 | 10205 | 312 14500 | 280 18000 | 805 | 1790 | 27300 | 1270.0 | HS | H-F-R | 13'1" | 3 |
| Mooney M-18L | P-L | 803 | 1 | 0 | Lyco D145-B2 | 1 | 65 | 12 | 1 | 26'10" | 17'8" | 6'3" | 95.0 | 6.6 | 520 | 260 | 780 | | 138 SL | 125 10000 | 440 | 1100 | 21000* | 21.0 | F-S | Fx | 5'5" | 2 |
| M-18C | P-L | 803 | 1 | 0 | Cont A65-8 | 1 | 65 | 12 | 1 | 26'10" | 17'8" | 6'3" | 95.0 | 6.6 | 540 | 310 | 850 | | 142 SL | 130 10000 | 390 | 1100 | 21000* | 21.0 | F-S | Fx | 5'5" | 2 |
| Piper PA-18-95 | P-L | 1A2 | 1 | 1 | Cont C90 | 1 | 90 2475 | 18 | 1½ | 35'4" | 22'4" | 6'8" | 178.5 | 18.8 | 780 | 720 | 1500 | 430 | 112 SL | 100 SL | 380 | 860 | 16300 | 30.0 | S | Fx | 6'2" | 2 |
| PA-18-125 | P-L | 1A2 | 1 | 1 | Lyco O-290-D | 1 | 125 2600 | 36 | 2 | 35'4" | 22'4" | 6'8" | 178.5 | 18.8 | 875 | 625 | 1500 | 332 | 120 SL | 108 SL | 560 | 1060 | 21100 | 46.2 | S | Fx | 6'2" | 2 |
| PA-20-115 | P-LS | 1A8 | 1 | 3 | Lyco 0290-D | 1 | 115 2600 | 36 | 2 | 29'4" | 20'5" | 6'2" | 147.5 | 13.2 | 980 | 820 | 1800 | 420 | 135 SL | 125 SL | 580 | 810 | 14250 | 46.2 | S | Fx | 6'2" | 2 |
| PA-20-135 | P-LS | 1A8 | 1 | 3 | Lyco 0290-D | 1 | 125 2600 | 36 | 2 | 29'4" | 20'5" | 6'2" | 147.5 | 13.2 | 1000 | 800 | 1800 | 400 | 140 SL | 128 SL | 600 | 810 | 14250 | 46.2 | A | CS | 6'2" | 2 |
| PA-22 | P-L | | 1 | 3 | Lyco 0290-D | 1 | 125 2600 | 36 | 2 | 29'4" | 20'5" | 6'2" | 147.5 | 13.2 | 1000 | 820 | 1820 | 420 | 135 SL | 125 SL | 580 | 810 | 14250 | 46.2 | S | Fx | 6'2" | 2 |
| Ryan Navion-B | P-L | 782 | 1 | 3 | Lyco GO-435-C2 | 1 | 260 3400 | 59½ | 3 | 33'4" | 27'6" | 8'8" | 185.0 | 10.3 | 1930 | 920 | 2850 | | 174 SL | 170 6000 | 640 | 1250 | 18000 | 72.9 | H | C | 7'9" | 2 |
| **BRITISH** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Airspeed Ambassador | P-L | | 3 | 40-47 | Br Centaurus | 2 | 5200 2800 | 1200 | 34 | 115'0" | 81'0" | 18'4" | 1200.0 | 74.0 | 35884 | 16116 | 52000 | 11650 | 300 20000 | 280 20000 | 1563 | 1500 | 29000 | 1313.0 | DH | C-F-R | 16'0" | 4 |
| Armstrong-Whitworth Apollo | P-L | | 4 | 24-40 | Own Mamba | 4 | 5080 15000 | 1374 | 10 | 97'0" | 71'5" | 26'0" | 986.0 | 61.5 | 28950 | 16050 | 45000 | 7500 | 310 25000 | 276 25000 | 1200 | 1500 | 35000 | 1400.0 | DH | C-R | 10'0" | 4 |
| Auster Aiglet | P-L | | 1 | 2 | DH Gipsy Major | 1 | 130 2350 | 18 | 4 | 36'0" | 23'8" | 8'5" | 184.5 | 18.0 | 1215 | 785 | 2000 | | 126 1000 | 105 1000 | 245 | 710 | 15000 | 46.8 | DH | Fx | 6'4" | 2 |
| Autocar | P-L | | 1 | 3 | DH Gipsy Major | 1 | 130 2350 | 38 | 4 | 36'0" | 23'2" | 8'3" | 184.5 | 18.0 | 1413 | 987 | 2400 | | 117 1000 | 103 1000 | 500 | 825 | 11000 | 46.8 | FR | Fx | 6'9" | 2 |
| Blackburn Universal Freighter | PC-L | | 4 | 90 | Br Hercules | 4 | 7800 | 3000 | | 161'0" | 99'2" | 33'0" | 2916.0 | 168.0 | 63670 | 41330 | 105000 | 28800 | 225 3250 | 180 12500 | 2750 | 620 | 19100 | | R | CS | 14'0" | 4 |
| Bristol Freighter & Wayfarer | PC-L | | 3 | 44 | Br Hercules | 2 | 4000 2800 | 1750 | 240 | 108'0" | 69'4" | 21'6" | 1487.0 | 54.3 | 28900 | 13100 | 42000 | | 230 3000 | 186 3000 | 1830 | 1100 | 21500 | 765.0 | R | C-F | 14'0" | 4 |
| Brabazon Mk? | P-L | | 6 | 100 | Br Proteus | 8 | (a) | 18716 | 163 | 230'0" | 178'10" | 49'7" | 5122.0 | 695.0 | 170000 | 130000 | 300000 | 30000 | | | | | | | R | C-F-R | 16'0" | 8 |
| Type 175 | P-L | | | 50-93 | Br Proteus | 4 | (b) | 6948 | | 140'0" | 114'0" | 36'8" | 2055.0 | | 72000 | 58000 | 130000 | | | 334 2700 | 2700 | | | | R | | 16'0" | 4 |
| Christlea Skyjeep | P-L | | 1 | 3 | Bla Cirrus Major | 4 | 155 2450 | 43 | 3¾ | 36'0" | 22'2" | 7'0" | 177.0 | 13.7 | 1623 | 977 | 2550 | 469 | 126 SL | 113 SL | 510 | 550 | 12000 | 57.5 | FR | Fx | 6'9" | 2 |
| DeHavilland Comet | P-L | | 4 | 36 | Own Ghost 50 | 4 | (c) | 7220 | 11 | 115'0" | 93'0" | 28'4" | 2015.0 | | | | 105000 | 12000 | | 490 40000 | 3540 | | | | N | | | |
| Heron | P-L | | 2 | 14-17 | Own Gipsy Queen | 4 | 980 2500 | 360 | 16 | 71'6" | 48'6" | 14'2" | 487.0 | | 7900 | 4600 | 12500 | 3420 | | 163 8000 | 1250 | 1200 | 18500 | 274.0 | DH | CS | 7'0" | 4 |
| Handley Page Hermes 4 | PC-L | | 5 | 40 | Br Hercules | 4 | 8400 | 3846 | 235 | 113'0" | 96'10" | 30'0" | 1408.0 | 75.4 | 55350 | 30650 | 86000 | 17000 | 355 20000 | 276 20000 | 3334 | 975 | 24700 | 2102.0 | DH | CS | 13'0" | 4 |
| Marathon I | P-L | | 2 | 18-20 | DH Gipsy Queen | 4 | 1380 2800 | 336 | 29 | 65'0" | 52'1" | 14'1" | 498.0 | 30.2 | 11916 | 6084 | 18000 | 5360 | 232 6750 | 208 10000 | 840 | 683 | 16500 | 497.0 | DH | CS | 7'6" | 3 |
| Percival Prince | P-L | | 1-2 | 8-12 | Av Leonides | 2 | 1100 | 208 | 18 | 56'0" | | 16'1" | 335.0 | | 7818 | 3082 | 11000 | 2612 | 228 5000 | 190 10000 | 752 | 1650 | 23400 | 254.8 | DH | C-F-R | 9'0" | 3 |
| Survey Prince | S-L | | | | Av Leonides | 2 | 1100 | 271 | 18 | 56'0" | | 16'1" | 385.0 | | 8400 | 2600 | 11000 | | 229 5000 | 190 10000 | 1180 | 1650 | 23400 | 254.8 | DH | C-F-R | 9'0" | 3 |
| Saunders-Roe Princess | P-S | | 8 | 100* | Br Proteus | 10 | (d) | 17400 | | 219'6" | 148'0" | | 5000.0 | | | | 315000 | 40000 | | 380 36000 | 5500 | | | | DH | CS | 16'8" | 6 |
| Scottish Aviation Pioneer | PC-L | | 1 | 4 | Av Leonides | 1 | 520 3000 | 72 | 5½ | 52'9" | 34'7" | 10'1" | 410.0 | 32.5 | 3909 | 1491 | 5400 | 850 | 162 4250 | 120 5000 | 427 | 1148 | 23000 | 115.0 | D-R | CS | 9'0" | 3 |
| Pioneer | PC-S | | 1 | 4 | Av Leonides | 1 | 570 3000 | 72 | 5½ | 52'6" | 34'7" | 10'1" | 410.0 | 32.5 | 4259 | 1511 | 5800 | 838 | 153 2000 | 110 5000 | 476 | 1100 | 20000 | 108.0 | DH | CS | 9'0" | 3 |
| Pioneer | PC-L | | 1 | 4 | P&W Wasp Jr. | 1 | 450 2300 | 72 | 5½ | 52'6" | 34'7" | 10'1" | 410.0 | 32.5 | 3781 | 1518 | 5300 | 875 | 151 3500 | 120 5000 | 416 | 935 | 18000 | 120.0 | HS | CS | 8'6" | 2 |
| Short Sealand SSI | P-LS | | 2 | 5-7 | DH Gipsy Queen | 2 | 630 2800 | 120 | 7 | 59'0" | 42'7" | 11'0" | 353.0 | 19.1 | 7313 | 1731 | 9100 | 1100 | 188 5250 | 173 7750 | 690 | 840 | 20000 | | DH | C-F-R | 7'9" | 4 |
| Solent 4 | PC-S | | 6-7 | 45 | Br Hercules | 4 | 8160 2830 | 3080 | 152 | 112'10" | 89'8" | 37'3" | 1637.0 | | 49020 | 29480 | 79000 | 17000 | 276 3000 | 200 10000 | 1170 | 1800 | | | DH | C-F-R | 12'9" | 4 |
| Vickers Armstrong Viscount | PC-L | | 3-5 | 40-48 | RR Dart | 4 | (e) | 2370 | 22½ | 91'0" | 81'2" | 26'9" | 963.0 | 71.8 | 32000 | 20500 | 51500 | 12900 | 370 20000 | 340 27000 | 2080 | 1750 | 28500 | 1960.0 | R | C-C-F | 10'0" | 4 |

**ABBREVIATIONS:**

(+)—Plus
(a)—27200 hp and 6400 lb. thrust
(b)—13600 hp and 3200 lb thrust
(c)—20000 lb thrust at 10250 rpm
(d)—34000 hp and 8000 lb thrust
(e)—5600 hp and 1450 lb thrust at 14500 rpm

A—Aeromatic
Av—Alvis, Ltd.
Bla—Blackburn & General Aircraft, Ltd.
Br—Bristol Aeroplane Co.
C—Controllable
C-C-F—Constant speed, controllable, full feathering
C-F—Constant speed, full feathering
C-F-R—Constant speed, full feathering, reversible
C-H—Curtis or Hamilton
C-L—Cargo, land
Cont—Continental Motor Corp.
C-R—Constant speed, reversible
CS—Constant speed
DH—DeHavilland Engine Co., Ltd.
D-R—DeHavilland or Rotol
FR—Fairey-Reed
F-R—Full feathering, reversible
Frank—Franklin (Aircooled Motors, Inc.)
F-S—Flottorp or Sensenich
Fx—Fixed
H—Hartzell
H-F—Hydromatic, full feathering
H-F-R—Hydromatic, full feathering reversible
HS—Hamilton Standard
Jac—Jacobs Aircraft Engine Co.
L—Lewis
Lyco—Lycoming-Spencer Div.
N—No or none
P-A—Passenger, amphibian
PC-L—Passenger or cargo, land
PC-LS—Passenger cargo, land or sea
PC-S—Passenger or cargo, sea
P-L—Passenger, land
P-LS—Passenger, land or sea
P-S—Passenger, sea
P&W—Pratt & Whitney Aircraft Div.
R—Rotol
RR—Rolls Royce, Ltd.
S—Sensenich
SL—Sea level
S-L—Sea or land
Wr—Wright Aeronautics Corp.

**For Directory of the Manufacturers listed above, see page 190.**

# 1951 U. S. ROTARY WING AIRCRAFT

| MAKE AND MODEL | GENERAL | | | | | ENGINE | | | MAIN ROTOR | | | | | | | | ANTI-TORQUE ROTOR | | | | | WEIGHTS (Lb.) | | | PERFORMANCE | | | | | | | LANDING GEAR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A. T. C. Number | Number of Seats | Fuel Capacity (Gal.) | Octane Number Recommended | Oil Capacity (Gal.) | Make and Model | Number Used | Rated Hp. at Specified R. P. M. | Number Used | Location | Blades per Rotor | Diameter of Rotor (Ft. In.) | Blade Area (Sq. Ft.) | Type (if more than one used) | Rotor R. P. M. at Cruising Speed | Disc Area (Sq. Ft.) | Number of Blades | Rotor Diameter (Ft. In.) | Blade Area (Sq. Ft.) | Rotor R. P. M. at Cruising Speed | Disc Area (Sq. Ft.) | Gross (Normal Load) | Empty | Useful Load | Max. Speed at Altitude | Cruising Speed at Altitude | Fuel Consumption Cruising Speed (Lb./hr.) | Range (Miles) at Cruising Speed | Rate of Climb: Maximum (Ft./min.) | Rate of Climb: Vertical (Ft./min.) | Service Ceiling—Normal Load | Type | Tread—Main Gear |
| **American** XA-8 | N | 2 | 50 | .... | N | Own AJ-9.4 | 2 | 60 | 1 | C | 2 | 38′ 0″ | .... | .... | .... | 1018 | N | .... | .... | .... | .... | 1500 | .... | .... | R | R | R | R | R | R | R | Tri | .... |
| **Bell** 47D-1 | | 3 | 29 | | 2 | Frank 6V4-178-B32 | 1 | 178-3000 | 1 | (a) | 2 | 35′ 1⅛″ | 35.3 | .... | 285 | 965 | 2 | 5′ 9″ | 2.40 | 1800 | 25.9 | 2200 | 1380 | 820 | 40-11000 | 73+-5000 | 66 | 192 | 800 | .... | 11000 | Qua | 5′ 10¼″ |
| H-13D | | 2-3 | 28 | | 2 | Frank O-335-3 | 1 | 200-3100 | 1 | (b) | 2 | 35′ 1⅛″ | 35.3 | .... | 360 | 965 | 2 | 5′ 8½″ | 2.40 | 1800 | 25.6 | 2200 | 1494 | 806 | 98-SL | 78-SL | 83 | 161 | 1000 | 1000 | 13000 | Qua | 5′ 10¼″ |
| H-12 | | 8-10 | 121 | 91 | 16 | R-1340-50 | 1 | 600-2250 | 1 | (c) | 2 | 47′ 6″ | 71.0 | .... | 279 | 1773 | 2 | 8′ 6″ | 10.50 | 1375 | 56.8 | 6513 | 4674 | 1839 | 120-SL | 85-SL | 300 | 900 | 900 | 10000 | Qua | 7′ 0″ |
| HTL-3 | | 2-3 | 33 | | | Frank O-335-2 | 1 | 200-3100 | 1 | .... | 2 | 35′ 1⅛″ | 35.3 | .... | 360 | 965 | 2 | 5′ 8″ | 2.40 | 1800 | 25.3 | 2350 | 1625 | 725 | 98-SL | 85-SL | 84 | 210 | 870 | 870 | 7800 | .... | .... |
| HTL-4 | | 2-3 | 29 | | | Frank O-335-2 | 1 | 200-3100 | 1 | .... | 2 | 35′ 1⅛″ | 35.3 | .... | 360 | 965 | 2 | 5′ 8¼″ | 2.40 | 1800 | 25.4 | 2066 | 1507 | 579 | 93-SL | 78-SL | 64 | 151 | 960 | 960 | 7800 | .... | .... |
| **Hiller** UH-12A | 6H-1 | 3 | 27 | 80 | 2 | Frank 6V4-178-B33 | 1 | 178-3000 | 1 | F | 2 | 35′ 0″ | 32.3 | .... | 306 | 962 | 2 | 5′ 6″ | 2.30 | 1770 | 23.8 | 2400 | 1442 | 958 | 84-SL | 75-SL | 75 | 144 | 730 | 400 | 7500 | Tri | 7′ 6″ |
| **Kaman** K-225 | 1H-1 | 3 | 38 | 91 | 4½ | Lyco O-435-A2 | 1 | 225-3000 | 2 | (d) | 2 | 38′ 0″ | .... | Int | 236 | 1266 | N | .... | .... | .... | .... | 2500 | 1800 | 700 | 73-SL | 65-SL | 87 | 180 | 1000 | 300 | 12000 | Tri | 7′ 6″ |
| HTK-1 | | | | | | Data Restricted | | | | | | | | | | | | | | | | | | | | | | | | | | Qua | .... |
| HOK-1 | | | | | | Data Restricted | | | | | | | | | | | | | | | | | | | | | | | | | | Qua | .... |
| **Kellett** H-10 | .... | 12 | 180 | 91 | 21¼ | Cont R975-15 | 2 | 500-2450 | 2 | SS | 3 | 65′ 0″ | 29.6 | Int | 140 | 3710 | N | .... | .... | .... | .... | 11000 | 8256 | 2744 | 121-SL | 90-SL | 280 | 350 | 1650 | 1000 | 18800 | Tri | 10′ 0″ |
| **McDonnell** XHJD-1 | .... | 10 | 195 | 90 | 16 | P&W R985-AN | 2 | 450-2300 | 2 | SS | 3 | 50′ 0″ | 20.0 | Int | 190 | 3750 | N | .... | .... | .... | .... | 10000 | .... | .... | 115+-SL | 90+-SL | 420 | 350 | 1200 | 400 | 13200 | Tri | 17′ 6″ |
| XH-20 | .... | 1 | 26 | 73 | N | Own Ram Jets | 2 | 25 600 | 2 | .... | 2 | 20′ 0″ | .... | .... | 640 | 314 | N | .... | .... | .... | .... | 610 | 285 | 325 | 90+-SL | 80-SL | .... | .... | .... | .... | .... | Tri | 8′ 0″ |
| **Piasecki** HRP-2 | .... | 10 | 100 | 91 | 8 | P&W R-1340 | 1 | 600-2250 | 2 | Tan | 3 | 41′ 0″ | .... | Tan | .... | 1320 | N | .... | .... | .... | .... | 7129 | 5205 | 1924 | 105+-SL | 85+-SL | .... | 300+ | 950+ | 380+ | 11000 | Tri | .... |
| HUP-1 | .... | 7 | 100 | 100 | 7 | Cont 975-34 | 1 | 525-2300 | 2 | Tan | 3 | 35′ 0″ | .... | Tan | .... | 958 | N | .... | .... | .... | .... | 5450 | 3924 | 1526 | 125-SL | 100+-SL | .... | 400+ | 1200 | 950 | 12000 | Tri | .... |
| H-21 | .... | 20 | 300 | 100 | 19½ | CW R-1820-103 | 1 | 1425-2700 | 2 | Tan | 3 | .... | .... | Tan | .... | .... | N | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | Tri | .... |
| **Rotor-Craft** XH-11 | .... | 2 | .... | .... | .... | Lyco .... | 1 | 125-2800 | 2 | Tan | 3 | 21′ 6″ | 51.7 | Tan | 300 | 750 | N | .... | .... | .... | .... | 1650 | 1050 | 600 | R | R | R | R | R | R | R | Tri | .... |
| **Sikorsky** S-51 | H-2 | 4 | 100 | 80 | 8 | P&W R-985-B4 | 1 | 450-2300 | 1 | F | 3 | 49′ 0″ | .... | .... | 194 | 1886 | 2 | 8′ 8″ | .... | 1278 | 59.0 | 5500 | 3810 | 1690 | 103-(e) | 85-(g) | 168 | 255 | 1000 | 200 | 13500 | Tri | 12′ 0″ |
| S-52-2 | H-3 | 3-4 | 60 | 80 | 3½ | Frank 6V6-245-B16F | 1 | 245-3275 | 1 | A | 3 | 33′ 0″ | .... | .... | 300 | 855 | 2 | 5′ 4″ | .... | 2205 | 22.4 | 2700 | 1825 | 875 | 110-SL | 91-(f) | 96 | 306 | 1100 | 300 | 12000 | Qua | 6′ 0″ |
| S-55 | .... | 12 | 190 | 80 | 9¼ | P&W R-1340 | 1 | 600-2250 | 1 | F | 3 | 53′ 0″ | .... | .... | 194 | 2206 | 2 | 8′ 8″ | .... | 1360 | 59.0 | 6800 | 4395 | 2405 | 110-(f) | 86-(g) | 222 | 462 | 1130 | 350 | 15500 | Qua | 11′ 0″ |

**ABBREVIATIONS**

(a)—2 in. aft of station O.
(b)—Center line of engine aft of cabin.
(c)—0.28 in. aft of station O
(d)—Laterally disposed on center of gravity.
(e)—Sea level to 2300 ft.
(f)—Sea level to 6200 ft.
(g)—Sea level to 9500 ft.
**A**—Aft. **C**—Center.
**Cont**—Continental Motors Corp.
**CW**—Curtiss-Wright Corp.
**F**—Forward.
**Frank**—Franklin (Aircooled Motors).
**Int**—Intermeshing.
**Lyco**—Lycoming-Spencer Div.
**N**—No or none.
**P&W**—Pratt & Whitney Aircraft Div.
**Qua**—Quadracycle.
**R**—Restricted.
**SL**—Sea level.
**SS**—Side by side.
**Tan**—Tandem.
**Tri**—Tricycle.

***For Directory of the Manufacturers listed above, see page 190.***

# 1951 BRITISH PASSENGER CARS

| MAKE AND MODEL | ENGINE | | | | | | | | | GENERAL DATA | | | | | | | | | | | REAR AXLE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | TREAD | | OVERALL DIMENSIONS (In.) | | | | | | | | | | | | | |
| | Number of Cylinders, Bore and Stroke (In.) | Maximum Brake Hp. at Specified R.P.M. | Piston Displacement (Cu. In.) | Compression Ratio (To -1) | Cylinder Arrangement | Valve Location | Piston Material | Camshaft Drive | Wheelbase (In.) | Front (In.) | Rear (In.) | Length Including Bumpers and Bumper Guards | Width | Height: Road to Roof, No Load | Tires (In.) | Oil Pressure to— | Carburetors - No. Used and Type | Cooling System | Shifting Method | No. of Forward Speeds | Final Drive Type | Gear Ratio (To -1) | Torque Taken By | Independent Suspension | Service Brakes | Shipping Weight (Lb.) |
| Allard K | 8 3.06x3.75 | 95 3900 | 223.9 | 7.00 | V | L | AA | HG | 108.0 | 56.0 | 52.0 | 146.0 | 68.0 | 47.0 | 6.25/16 | abc | 2-DD | TP | HS | 3 | SB | 3.78 | TT | Fr | H | 2488 |
| J | 8 3.19x3.75 | 140 4000 | 238.5 | 7.00 | V | I | AA | HG | 100.0 | 56.0 | 52.0 | 143.0 | 63.0 | 34.0 | 6.00/16 | abc | 2-DD | TP | HS | 3 | SB | 3.63 | TT | Fr | H | 2016 |
| P | 8 3.06x3.75 | 85 3500 | 223.9 | 6.15 | V | L | AA | HG | 112.0 | 56.0 | 58.0 | 189.0 | 71.0 | 60.0 | 6.25/16 | abc | 1-DD | TP | HS | 3 | SB | 3.78 | TT | Fr | H | 3248 |
| Alta **GP1 | 4 3.07x3.07 | 275 6300 | 90.6 | 8.88 | IL | I | AA | C | 94.0 | 51.0 | 50.0 | | | | (aa) | abcde | 2-Ho | P | HS | 4 | StB | 3.80 | TA | FR | H | 1830 |
| GP2 | 4 3.29x3.54 | 170 6100 | 121.4 | 14.75 | IL | I | AA | C | 94.0 | 51.0 | 50.0 | | | | (bb) | abcde | 2-Ho | P | HS | 4 | StB | 3.80 | TA | FR | H | 1600 |
| Alvis TA-21 | 6 3.31x3.54 | 83 4000 | 182.4 | 7.25 | IL | I | AA | C | 111.5 | 54.6 | 54.1 | 182.1 | 66.0 | 62.5 | 6.00/15 | abce | 1-DD | P | HS | 4 | Hy | 4.09 | Sp | Fr | H | 3192 |
| TB-21 | 6 3.31x3.54 | 95 4000 | 182.4 | 7.25 | IL | I | AA | C | 111.5 | 54.6 | 54.1 | 177.2 | 67.0 | 58.0 | 6.00/15 | abce | 1-SH | P | HS | 4 | Hy | 3.77 | Sp | Fr | H | 2928 |
| Armstrong-Siddeley 18HP | 6 2.76x3.94 | 75 4200 | 140.9 | 6.50 | IL | I | AA | C | 115.0 | 54.0 | 54.5 | 186.0 | 68.0 | 61.0 | 6.50/17 | abce | 1-DU | P | HP | 4 | Hy | 5.10 | | Fr | H-M | 3115 |
| Aston-Martin DB2 | 6 3.07x3.54 | 105 5000 | 157.2 | 6.50 | IL | I | AA | C | 99.0 | 54.0 | 54.0 | 162.5 | 65.0 | 53.5 | 6.00/16 | abc | ?-Ho | P | HS | 4 | Hy | 4.10 | Sp | Fr | H | 2454 |
| Austin A40 | 4 2.58x3.50 | 40 4300 | 73.2 | 7.20 | IL | I | AA | C | 92.5 | 48.5 | 49.5 | 153.2 | 61.0 | 63.8 | 5.25/16 | abce | 1-Do | P | HS | 4 | SB | 5.14 | Sp | Fr | M-H | 2128 |
| A70 | 4 3.12x4.38 | 68 3800 | 134.1 | 6.80 | IL | I | AA | C | 99.0 | 54.0 | 56.0 | 167.5 | 69.6 | 65.4 | 6.00/16 | abce | 1-Do | P | HS | 4 | SB | 4.12 | Sp | Fr | H | 2744 |
| A90 | 4 3.44x4.38 | 88 4000 | 167.2 | 7.50 | IL | I | AA | C | 96.0 | 53.5 | 55.5 | 177.1 | 70.0 | 61.0 | 5.50/16 | abce | 2-Do | P | HS | 4 | SB | 4.12 | Sp | Fr | H | 3000 |
| A125, A135 | 6 3.44x4.38 | | 243.0 | 6.80 | IL | I | AA | C | 119.0 | 58.0 | 60.0 | 192.0 | 73.0 | 67.0 | 6.50/16 | abce | 1-Do | P | HS | 4 | Hy | 4.09 | Sp | Fr | H | 4382 |
| Bentley Mark VI | 6 3.50x4.50 | | 260.0 | 6.40 | IL | F | AA | HG | 120.0 | 56.5 | 58.5 | 192.0 | 70.0 | 68.0 | 6.50/16 | abcd | ?-SH | P | HS | 4 | Hy | 3.73 | Sp | Fr | H-M | 4150 |
| Bristol 400 | 6 2.60x3.78 | 85 4500 | 120.2 | 7.50 | IL | I | AA | C | 114.0 | 51.7 | 54.0 | 191.5 | 67.0 | | 5.50/16 | abcde | 3-Do | P | HS | 4 | SB | 3.90 | RA | FR | H | 2530 |
| Citroen **Light 15 | 4 3.07x3.94 | 56 4300 | 116.6 | 6.60 | IL | I | AA | C | 114.5 | 54.0 | 53.5 | 168.0 | 65.2 | 59.2 | 6.50/16 | abce | 1-SD | TS | HS | 3 | SB | 3.46 | Sp | Fr | H | 2352 |
| **Six | 6 3.07x3.94 | 76 3700 | 175.0 | 6.40 | IL | I | AA | C | 121.5 | 59.5 | 56.0 | 191.0 | 69.2 | 60.2 | 7.25/16 | abce | 1-DD | TS | HS | 3 | SB | 3.88 | Sp | Fr | H | 3052 |
| Daimler Consort | 6 2.74x4.35 | 70 4200 | 154.0 | 7.00 | IL | I | AA | C | 114.0 | 52.0 | 52.0 | 180.0 | 65.5 | 63.0 | 6.00/16 | abce | 1-Ho | P | Pr | 4 | Hy | 4.30 | Sp | Fr | M-H | 3440 |
| Sports | 6 2.74x4.35 | 85 4200 | 154.0 | 7.00 | IL | I | AA | C | 111.0 | 52.0 | 52.0 | 187.5 | 64.5 | 62.0 | 6.00/16 | abce | ?-Ho | P | Pr | 4 | Wo | 4.86 | Sp | Fr | M-H | 3520 |
| 27 | 6 3.35x4.72 | 100 3600 | 250.0 | 6.30 | IL | I | AA | C | 138.4 | 60.0 | 63.0 | 213.5 | 73.5 | 72.0 | 8.00/17 | abce | 1-Do | P | Pr | 4 | Hy | 4.72 | TA | | M-H | 5570 |
| 36 | 8 3.35x4.72 | 150 3600 | 333.0 | 6.30 | IL | I | AA | C | 147.0 | 60.0 | 63.0 | 222.0 | 73.5 | 72.0 | 8.00/17 | abce | 2-Do | P | Pr | 4 | Hy | 4.09 | TA | | M-H | 5910 |
| Ford Zephyr Six | 6 3.12x3.00 | 68 4000 | 138.0 | 6.80 | IL | I | AS | C | 101.0 | 50.0 | 49.0 | 171.8 | 63.9 | 60.8 | 6.40/13 | abce | 1-SD | P | HS | 3 | Hy | 4.38 | Sp | Fr | M | 2498 |
| Consul | 4 3.12x3.00 | 47 4400 | 92.0 | 6.80 | IL | I | AS | C | 103.0 | 50.0 | 49.0 | 162.6 | 64.0 | 60.8 | 5.90/13 | abce | 1-SD | P | HS | 3 | Hy | 4.62 | Sp | Fr | M | 2347 |
| Prefect | 4 2.50x3.64 | 30 4000 | 71.6 | 6.16 | IL | L | AA | C | 94.0 | 45.0 | 45.0 | 155.2 | 56.3 | 63.5 | 5.00/16 | abce | 1-SD | TS | HS | 3 | SB | 5.50 | TT | N | M | 1808 |
| Domestic Ang. | 4 2.23x3.64 | 23 4000 | 56.9 | 6.30 | IL | L | AA | C | 90.0 | 45.0 | 45.0 | 152.2 | 56.5 | 64.2 | 4.50/17 | abce | 1-SD | TS | HS | 3 | SB | 5.50 | TT | N | M | 1636 |
| Export Ang. | 4 2.50x3.64 | 33 4000 | 71.6 | 6.16 | IL | L | AA | C | 90.0 | 45.0 | 45.0 | 152.2 | 56.5 | 64.2 | 5.00/16 | abce | 1-SD | TS | HS | 3 | SB | 5.50 | TT | N | M | 1657 |
| Frazer-Nash Le Mans Replica | 6 2.60x3.78 | 120 5500 | 120.2 | 9.00 | IL | I | AA | C | 96.0 | 48.0 | 48.0 | 141.0 | 58.0 | | 5.25/16 | abcde | 3-Do | P | HS | 4 | SB | 3.50 | RA | FR | H | 1484 |
| Cabriolet | 6 2.60x3.78 | 85 4500 | 120.2 | 7.50 | IL | I | AA | C | 108.0 | 48.0 | 54.0 | 164.0 | 64.0 | | 5.50/16 | abcde | 3-Do | P | HS | 4 | SB | 3.90 | RA | FR | H | 2150 |
| Mille Miglia | 6 2.60x3.78 | 120 5500 | 120.2 | 9.00 | IL | I | AA | C | 96.0 | 48.0 | 48.0 | 150.0 | 58.0 | | 5.25/16 | abcde | 3-Do | P | HS | 4 | SB | 3.50 | RA | FR | H | 1710 |
| Hillman Minx | 4 2.56x3.74 | 42 4200 | 77.1 | 6.60 | IL | L | AA | C | 93.0 | 48.6 | 48.5 | 159.9 | 62.0 | 60.0 | 5.50/15 | abcde | 1-Do | P | HS | 4 | SB | 5.22 | Sp | Fr | H | 1995 |
| HRG 1100 | 4 2.36x3.74 | 40 5200 | 65.5 | 7.75 | IL | I | AA | C | 100.5 | 48.0 | 45.0 | 143.0 | 59.0 | | 5.50/17 | abce | ?-Do | P | HS | 4 | SB | 4.55 | Sp | N | M | 1260 |
| 1500 | 4 2.68x4.06 | 61 4800 | 91.3 | 7.00 | IL | I | AA | C | 103.5 | 48.0 | 45.0 | 146.0 | 59.0 | | 5.50/17 | abce | ?-Do | P | HS | 4 | SB | 4.00 | Sp | N | M | 1372 |
| Humber Hawk | 4 3.19x4.33 | 58 3400 | 138.2 | 6.32 | IL | L | AA | C | 105.5 | 56.0 | 57.0 | 179.5 | 70.0 | 64.8 | 5.40/15 | abce | 1-Do | P | HS | 4 | Hy | 4.55 | | Fr | H | 2777 |
| Super Snipe | 6 3.35x4.72 | 100 3400 | 249.2 | 6.25 | IL | L | AA | C | 117.5 | 57.9 | 61.0 | 190.8 | 74.8 | 65.8 | 6.50/16 | abcde | 1-Do | P | HS | 4 | SB | 4.09 | Sp | Fr | H | 3829 |
| Pullman | 6 3.35x4.72 | 100 3400 | 249.2 | 6.25 | IL | L | AA | C | 131.0 | 57.9 | 62.2 | 211.9 | 74.8 | 69.0 | 7.00/16 | abcde | 1-Do | P | HS | 4 | SB | 4.09 | Sp | Fr | H | 4445 |
| Jaguar XK 120 | 6 3.27x4.17 | 160 5200 | 210.0 | 8.00 | IL | I | AA | C | 100.0 | 51.0 | 50.0 | 173.5 | 62.0 | 52.5 | 6.70/16 | abcde | ?-SH | P | HS | 4 | Hy | 3.64 | Sp | Fr | H | 2750 |
| Mark VII | 6 3.27x4.17 | 160 5200 | 210.0 | 7.00 | IL | I | AA | C | 120.0 | 56.0 | 57.5 | 196.5 | 73.0 | 63.0 | 7.00/16 | abcde | ?-SH | P | HS | 4 | Hy | 4.27 | Sp | Fr | H | 3700 |
| Jensen Saloon | 6 3.43x4.37 | 130 4000 | 243.0 | 6.80 | IL | I | AA | C | 127.5 | 58.0 | 59.0 | 197.0 | 70.0 | | 6.50/16 | ac | 3-Do | P | HS | 4 | Hy | 3.70 | TA | Fr | H-M | 3584 |
| Interceptor | 6 3.43x4.37 | 130 4000 | 243.0 | 6.80 | IL | I | AA | C | 114.0 | 54.0 | 57.0 | 183.0 | 66.0 | | 5.50/16 | ac | 1-Do | P | HS | 4 | Hy | 3.22 | TA | Fr | H-M | 2800 |
| Jowett Javelin | 4 2.86x3.54 | 52 4500 | 91.1 | 7.20 | HO | I | AA | C | 102.0 | 52.0 | 49.8 | 168.0 | 61.0 | 62.5 | 5.25/16 | abce | ?-SD | P | HS | 4 | Hy | 4.88 | TA | FR | H | 2240 |
| Jupiter | 4 2.86x3.54 | 60 4500 | 91.1 | 8.00 | HO | I | AA | C | 93.0 | 52.0 | 50.5 | 168.0 | 62.0 | 56.0 | 5.50/16 | abce | ?-SD | P | HS | 4 | Hy | 4.88 | TA | FR | H | 1792 |
| Lagonda Saloon, Coupe | 6 3.07x3.54 | 105 5000 | 157.2 | 6.50 | IL | I | AA | C | 113.5 | 56.4 | 56.8 | 188.0 | 68.0 | 64.0 | 6.00/16 | abc | ?-Ho | P | HS | 4 | Hy | 4.56 | TT | FR | H | 3248 |
| Lanchester 10 | 4 2.50x4.00 | 40 4200 | 78.5 | 7.00 | IL | I | AA | C | 99.0 | 48.0 | 48.0 | 158.5 | 58.0 | 63.0 | 5.25/16 | abcd | 1-Do | P | Pr | 4 | SB | 5.00 | Sp | | M | 2464 |
| 14 | 4 3.00x4.25 | 60 4200 | 120.0 | 6.70 | IL | I | AA | C | 104.0 | 52.0 | 52.0 | 175.0 | 65.0 | 62.0 | 6.70/15 | abce | 1-Do | P | Pr | 4 | Hy | 4.56 | Sp | | M-H | 3136 |
| Lea-Francis 18 HP | 4 3.35x4.33 | 95 4000 | 163.0 | 6.50 | IL | I | AA | C | 111.0 | 51.5 | 52.4 | 184.0 | 64.0 | 60.5 | 6.00/16 | abce | 1-ST | P | HS | 4 | Hy | 3.90 | Sp | Fr | M-H | 3024 |
| 2½ Litre | 4 3.35x4.33 | 100 4000 | 163.0 | 7.00 | IL | I | AA | C | 99.0 | 51.5 | 52.4 | 168.0 | 62.0 | 52.0 | 6.00/16 | abce | 2-ST | P | HS | 4 | Hy | 3.60 | Sp | Fr | M-H | 2578 |
| 14 HP | 4 2.95x3.94 | 70 4700 | 108.0 | 7.25 | IL | I | AA | CH | 111.0 | 51.5 | 52.4 | 184.0 | 64.0 | 60.5 | 5.50/17 | abce | 1-ST | P | HS | 4 | Hy | 4.88 | Sp | Fr | M-H | 2828 |
| M. G. TD | 4 2.62x3.54 | 54 5200 | 76.3 | 7.25 | IL | I | AA | C | 94.0 | 47.4 | 50.0 | 145.0 | 58.6 | 53.0 | 5.50/15 | abce | 2-Do | P | HS | 4 | Hy | 5.12 | Sp | Fr | H | 2065 |
| 1¼ Litre Saloon | 4 2.62x3.54 | 64 4800 | 76.3 | 7.20 | IL | I | AA | C | 99.0 | 47.4 | 50.0 | 161.0 | 59.0 | 58.0 | 5.25/16 | abce | 1-Do | P | HS | 4 | SS | 5.14 | Sp | Fr | H | 2184 |
| Morgan Plus 4 | 4 3.35x3.62 | 68 4200 | 117.6 | 6.70 | IL | I | AA | C | 96.0 | 47.0 | 47.0 | 144.0 | 56.0 | 52.5 | 5.25/16 | abcde | 1-Do | P | HS | 4 | Hy | 4.10 | Sp | Fr | H | 1700 |
| Morris Minor | 4 2.24x3.54 | 30 4400 | 56.0 | 6.60 | IL | L | AT | C | 86.0 | 50.6 | 50.3 | 147.5 | 60.0 | 60.0 | 5.00/13 | abce | 1-Ho | TS | HS | 4 | Hy | 4.55 | Sp | Fr | H | 1670 |
| Oxford | 4 2.89x3.43 | 41 4000 | 90.0 | 6.90 | IL | L | AA | HG | 97.0 | 53.0 | 53.0 | 167.0 | 65.0 | 63.0 | 5.50/15 | abce | 1-Ho | P | HS | 4 | Hy | 4.88 | Sp | Fr | H | 2218 |
| Six | 6 2.89x3.43 | 70 4600 | 135.0 | 7.00 | IL | I | AW | VS | 110.0 | 53.0 | 53.0 | 177.0 | 68.0 | 63.5 | 6.00/15 | abce | 1-Ho | P | HS | 4 | Hy | 4.55 | Sp | Fr | H | 2744 |
| Riley 1½ Litre | 4 2.72x3.94 | 55 4500 | 91.3 | 6.70 | IL | I | AA | C | 112.5 | 52.2 | 52.2 | 179.0 | 63.5 | 59.0 | 5.75/16 | abce | 1-Ho | P | HS | 4 | SB | 4.89 | Sp | Fr | H | 2688 |
| 2½ Litre | 4 3.17x4.72 | 100 4500 | 149.0 | 6.80 | IL | I | AA | C | 119.0 | 52.2 | 52.2 | 186.0 | 63.5 | 59.5 | 6.00/16 | abce | ?-Ho | P | HS | 4 | SB | 4.11 | Sp | Fr | H | 3164 |
| Rolls-Royce Silver Dawn | 6 3.50x4.50 | | 280.0 | 6.40 | IL | F | AA | HG | 120.0 | 56.5 | 58.5 | 192.0 | 73.0 | 66.0 | 6.50/16 | abcd | 1-DD | P | HS | 4 | Hy | 3.73 | Sp | Fr | H-M | 4150 |
| Silver Wraith | 6 3.50x4.50 | | 280.0 | 6.40 | IL | F | AA | HG | 127.0 | 58.5 | 60.0 | 206.0 | 73.0 | 72.5 | 6.50/17 | abcd | 1-DD | P | HS | 4 | Hy | 3.73 | Sp | Fr | H-M | 4500 |
| Rover 75 | 6 2.57x4.14 | 75 4200 | 129.2 | 7.25 | IL | F | AA | C | 111.0 | 52.0 | 51.5 | 178.2 | 65.6 | 63.2 | 6.00/15 | abce | 2-SD | P | HS | 4 | SB | 4.30 | Sp | Fr | M | 3138 |
| Singer SM1500 | 4 2.88x3.54 | 50 4500 | 91.9 | 7.00 | IL | I | AA | C | 107.5 | 50.5 | 51.0 | 174.0 | 63.0 | 64.0 | 5.50/16 | abc | 1-SD | P | HS | 4 | Hy | 5.12 | Sp | Fr | H | 2804 |
| 9HP | 4 2.36x3.74 | 36 4800 | 65.5 | 6.90 | IL | I | AA | C | 91.0 | 46.6 | 46.6 | 150.0 | 58.0 | 57.0 | 5.00/16 | abc | 1-SD | TS | HS | 4 | SB | 5.43 | Sp | N | M | 1708 |
| Standard Vanguard | 4 3.35x3.62 | 68 4200 | 127.6 | 6.70 | IL | I | AA | C | 94.0 | 51.0 | 54.0 | 166.0 | 69.0 | 64.0 | 5.75/16 | abcde | 1-SD | P | HS | 3 | Hy | 4.62 | Sp | Fr | H | 2825 |
| Sunbeam-Talbot 90 | 4 3.19x4.33 | 70 4000 | 138.2 | 6.45 | IL | I | AA | C | 97.5 | 47.5 | 50.5 | 167.5 | 62.5 | 60.8 | 5.50/16 | abce | 1-Do | P | HS | 4 | Hy | 3.90 | Sp | Fr | H | 2858 |
| Triumph Renown | 4 3.35x3.62 | 68 4200 | 127.6 | 6.70 | IL | I | AA | C | 108.0 | 51.0 | 54.0 | 178.0 | 64.0 | 65.0 | 5.75/16 | abcde | 1-SD | P | HS | 3 | Hy | 4.62 | Sp | Fr | H | 2779 |
| Mayflower | 4 2.48x3.94 | 38 4200 | 76.1 | 6.80 | IL | L | AA | C | 84.0 | 45.0 | 46.0 | 154.0 | 62.0 | 62.0 | 5.50/15 | abce | 1-SD | P | HS | 3 | Hy | 5.12 | Sp | Fr | H | 2002 |
| Vauxhall Wyvern | 4 2.74x3.74 | 35 3200 | 88.0 | 6.40 | IL | I | AA | C | 97.7 | 49.1 | 49.6 | 164.6 | 62.0 | | 5.00/16 | abc | 1-Do | P | HS | 3 | SB | 4.62 | Sp | Fr | H | 2093 |
| Velox | 6 2.74x3.94 | 64 3500 | 138.0 | 6.75 | IL | I | AA | C | 97.7 | 50.7 | 50.0 | 164.6 | 62.0 | | 5.90/15 | abc | 1-Do | P | HS | 3 | SB | 4.12 | Sp | Fr | H | 2278 |
| Wolseley 4/50 | 4 2.89x3.43 | 49 4400 | 90.0 | 7.00 | IL | I | AW | VS | 102.0 | 53.0 | 53.0 | 169.0 | 66.0 | 63.0 | 5.50/15 | abce | 1-Ho | P | HS | 4 | Hy | 4.88 | Sp | Fr | H | 2482 |
| 6/80 | 6 2.89x3.43 | 71 4000 | 135.0 | 7.00 | IL | I | AW | VS | 110.0 | 53.0 | 53.0 | 177.0 | 66.0 | 63.5 | 6.00/15 | abce | ?-Ho | P | HS | 4 | Hy | 4.55 | Sp | Fr | H | 3248 |

For abbreviations, see page 155

***For Directory of the Manufacturers listed above, see page 190.***

# 1951 OTHER FOREIGN CARS

| MAKE AND MODEL | ENGINE: Number of Cylinders, Bore and Stroke (In.) | ENGINE: Maximum Brake Hp. at Specified R.P.M. | ENGINE: Piston Displacement (Cu. In.) | ENGINE: Compression Ratio (To —1) | ENGINE: Cylinder Arrangement | ENGINE: Valve Location | ENGINE: Piston Material | ENGINE: Camshaft Drive | GENERAL DATA: Wheelbase (In.) | GENERAL DATA: TREAD Front (In.) | GENERAL DATA: TREAD Rear (In.) | GENERAL DATA: OVERALL DIMENSIONS (In.) Length Including Bumpers and Bumper Guards | GENERAL DATA: OVERALL DIMENSIONS (In.) Width | GENERAL DATA: OVERALL DIMENSIONS (In.) Height—Road to Roof, No Load | GENERAL DATA: Tires (In.) | GENERAL DATA: Oil Pressure to— | GENERAL DATA: Carburetors—No. Used and Type | GENERAL DATA: Cooling System | GENERAL DATA: Shifting Method | GENERAL DATA: No. of Forward Speeds | REAR AXLE: Final Drive Type | REAR AXLE: Gear Ratio (To —1) | REAR AXLE: Torque Taken By | Independent Suspension | Service Brakes | Shipping Weight (Lb.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CZECHOSLOVAKIAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aero-Minor | 2-2.76x3.15 | 19-3500 | 37.9 | | IL | * | N | | 90.0 | 44.0 | 44.0 | 159.0 | 56.0 | 57.0 | 4.75/16 | | 1- | TS | HS | 4 | | | | FR | H | 1820 |
| Skoda 1102 | 4-2.60x2.68 | 32-4000 | 64.8 | 6.50 | IL | I | AA | C | 96.0 | 47.2 | 49.2 | 161.5 | 59.0 | 59.8 | 5.25/16 | abc | 1-SH | P | HS | 4 | SB | 4.78 | TT | FR | H | 1980 |
| Tatra Tatraplan | 4-3.34x3.38 | 85-4000 | 119.0 | 6.00 | HO | I | AA | HG | 106.2 | 51.2 | 51.2 | 179.0 | 65.8 | 59.8 | 6.00/16 | abc | 2-SD | Air | HS | 4 | SB | 4.00 | TA | FR | H | 2940 |
| **FRENCH** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ford Vedette | 8-2.80x3.10 | 98-4800 | 132.0 | 7.00 | V | L | AS | HG | 108.0 | 53.2 | 51.4 | 189.0 | 68.0 | 62.0 | 6.40/15 | abc | 1-DD | P | HS | 3 | SB | 4.33 | Sp | Fr | H | 2820 |
| Hotchkiss 13-50 | 4-3.38x3.92 | 70-4000 | 141.0 | 6.20 | IL | I | AA | C | 115.0 | 57.1 | 56.6 | 187.6 | 69.6 | 61.0 | 6.40/16 | ac | 1-SU | P | HS | 4 | Hy | 4.37 | Sp | Fr | H | 2860 |
| 20-50 | 6-3.38x3.94 | 100-4000 | 212.6 | 6.35 | IL | I | AA | C | 121.8 | 57.1 | 56.6 | 197.0 | 69.6 | 61.0 | 6.50/16 | ac | 1-SU | P | HS | 4 | Hy | 3.90 | Sp | Fr | M | 3300 |
| Gregoire | 4-3.38x3.54 | 70-4000 | 134.0 | | HO | I | AA | C | 98.5 | 56.7 | 52.0 | | | | 5.50/16 | ac | 1-SU | P | HS | 4 | Hy | | Sp | FR | H | 2376 |
| Mathis 656 | 6-3.50x3.00 | 90-4000 | 174.0 | 6.80 | HO | L | AA | C | 106.0 | 53.0 | 53.0 | 173.0 | 70.0 | 61.0 | 6.40/15 | abc | 2-Do | P | HS | 6 | Hy | 4.10 | TA | FR | H | 2312 |
| Panhard Levassor Dyna 3 | 2-2.84x2.96 | 26-5000 | 37.2 | 7.50 | HO | I | AA | SG | 84.0 | 48.0 | 48.0 | 150.5 | 56.7 | 61.5 | 5.70/16 | | 1-SD | Air | HS | 4 | SB | 6.33 | | Fr | H | 1276 |
| Dyna 4 | 2-3.13x2.96 | 33-5000 | 45.5 | 7.50 | HO | I | AA | SG | 84.0 | 48.0 | 48.0 | 150.5 | 56.7 | 61.5 | 5.70/16 | | 1-SD | Air | HS | 4 | SB | 6.33 | | Fr | H | 1276 |
| Peugeot 203 | 4-2.96x2.88 | 42-4500 | 78.5 | 6.80 | IL | I | AA | C | 101.5 | 52.0 | 52.0 | 171.0 | 63.5 | 61.5 | 6.00/16 | | 1-Do | TS | HS | 4 | Wo | 5.75 | TT | Fr | H | 1980 |
| Renault R1062 | 4-2.15x3.15 | 21-5000 | 45.8 | 7.25 | IL | I | AS | HG | 82.6 | 47.6 | 47.6 | 142.0 | 56.3 | 57.9 | 5.25/16 | abce | 1-Do | P | HS | 3 | SB | 4.71 | | FR | H | 1232 |
| Simca Sports | 4-2.64x2.96 | 80-4800 | 74.5 | 7.75 | IL | I | AA | C | 96.2 | 48.5 | 48.2 | 161.5 | 61.0 | 51.2 | 5.25/15 | abce | 1-SD | TS | HS | 4 | SB | 4.44 | Sp | Fr | H | 1980 |
| 515 | 4-2.64x2.96 | 40-4400 | 74.5 | 6.25 | IL | I | AA | C | 95.2 | 48.5 | 48.2 | 159.0 | 58.3 | 59.0 | 5.25/15 | abce | 1-SD | TS | HS | 4 | SB | 4.78 | Sp | Fr | H | 1914 |
| **GERMAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Talbot Lago T-15 | 4-3.66x3.90 | 120-4300 | 164.0 | 7.00 | IL | I | AA | C | 116.1 | 57.0 | 56.7 | 191.0 | 69.0 | 60.2 | 6.00/16 | abce | 2-Do | P | Pre | 4 | SB | 3.92 | Sp | Fr | H | 3360 |
| Lago T-26 | 6-3.66x4.33 | 160-4200 | 273.5 | 7.00 | IL | I | AA | C | 123.1 | 56.0 | 58.5 | 205.0 | 70.9 | 63.0 | 6.00/18 | abce | 2-Do | P | Pre | 4 | SB | 3.58 | Sp | Fr | H | 4070 |
| Lago T-26GS | 6-3.66x4.33 | 190-4200 | 273.5 | 8.00 | IL | I | AA | C | 110.1 | 54.5 | 52.4 | | | | 6.00/18 | abce | 3-Do | P | Pre | 4 | SB | 3.36 | Sp | Fr | H | 24204 |
| BMW 340 | 6-2.60x3.78 | 55-3750 | 120.0 | 6.00 | IL | I | AA | C | 113.0 | 51.2 | 55.1 | | | | 5.50/16 | abcde | 1-Do | P | HS | 4 | Hy | 4.86 | TA | Fr | H | 17184 |
| Ford Standard | 4-2.50x3.62 | 34-4250 | 71.6 | 6.80 | IL | L | AA | HG | 94.0 | 48.6 | 48.0 | 161.0 | 58.3 | 63.0 | 5.00/16 | abce | 1-Do | TS | HS | 3 | SB | 4.86 | TT | N | H | 1900 |
| Special | 4-2.50x3.62 | 34-4250 | 71.6 | 6.80 | IL | L | AA | HG | 94.0 | 48.6 | 48.0 | 160.0 | 58.3 | 63.0 | 5.90/15 | abce | 1-Do | TS | HS | 3 | SB | 4.86 | TT | N | H | 1975 |
| Mercedes-Benz 170V | 4-2.96x3.94 | 45-3800 | 107.9 | 6.50 | IL | L | AA | HG | 112.0 | 51.6 | 52.9 | 168.5 | 64.0 | 63.0 | 5.50/16 | abce | 1-Up | P | HS | 4 | SB | 4.12 | TT | R | H | 1894 |
| 170S | 4-2.96x3.94 | 52-4000 | 107.9 | 6.50 | IL | L | AA | HG | 112.0 | 51.6 | 55.9 | 175.0 | 66.2 | 64.0 | 6.40/15 | abce | 1-Do | P | HS | 4 | SB | 4.38 | TT | R | H | 1780 |
| 170D | 4-2.96x3.94 | 40-3200 | 107.9 | 16.00 | IL | L | AA | HG | 112.0 | 51.6 | 52.9 | 168.5 | 64.0 | 63.0 | 5.50/16 | abce | DI | P | HS | 4 | SB | 4.12 | TT | R | H | 1826 |
| Opel Olympia | 4-3.15x2.91 | 43-4000 | 90.7 | 6.00 | IL | I | AS | HG | 94.3 | 48.9 | 49.2 | 159.4 | 61.8 | 62.2 | 5.00/16 | abcde | 1-Do | P | HS | 3 | SB | 4.57 | Sp | Fr | H | 1955 |
| Kapitaen | 6-3.15x3.23 | 60-3800 | 150.9 | 6.10 | IL | I | AS | HG | 106.1 | 53.1 | 52.2 | 181.9 | 65.4 | 64.6 | 5.50/16 | abcde | 1-Do | P | HS | 3 | SB | 4.30 | Sp | Fr | H | 2557 |
| Veritas Meteor | 6-2.96x2.95 | 160-8000 | 122.0 | 12.00 | IL | I | AA | C | 98.5 | 51.2 | 51.2 | | | | 5.50/16 | abc | 3-Do | P | HS | 5 | StB | Var | TA | FR | H | 12104 |
| Limousine | 6-2.96x2.95 | 100-5000 | 122.0 | 7.70 | IL | I | AA | C | 113.0 | 51.2 | 51.2 | 167.2 | 65.0 | 55.1 | 5.50/16 | abc | 3-Do | P | HS | 5 | StB | | TA | FR | H | 2640 |
| Dyna | 3-3.13x2.95 | 33-5000 | 45.5 | 7.20 | HO | I | AA | Sh | 85.9 | 48.0 | 48.0 | 153.8 | 57.1 | 54.4 | 5.75/16 | abc | 1-Do | Air | HS | 4 | StB | | Sp | R | H | 1474 |
| VW (Volkswagen) 10/11 | 4-2.96x2.52 | 25-3300 | 69.0 | 5.80 | HO | I | AS | HG | 94.5 | 50.0 | 49.2 | 159.3 | 60.6 | 59.1 | 5.00/16 | abc | 1-SD | Air | HS | 4 | SB | 4.43 | TA | FR | M | 1530 |
| 2/22 | 4-2.96x2.52 | 25-3300 | 69.0 | 5.80 | HO | I | AS | HG | 94.5 | 53.4 | 53.5 | 165.3 | 66.9 | 74.8 | 5.50/16 | abc | 1-SD | Air | HS | 4 | SDR | 6.20 | TA | FR | H | 2200 |
| **ITALIAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cisitalia 202B | 4-2.68x2.96 | 55-5500 | 67.1 | 7.50 | IL | I | AA | BG | 94.5 | 49.6 | 49.6 | | | | 5.50/15 | abcde | 1-Do | P | HS | 4 | SB | 4.10 | TT | Fr | H | 10986 |
| Ferrari 195 Inter | 12-2.56x2.32 | 130-6000 | 119.0 | 7.50 | V | I | AA | C | 98.5 | 50.0 | 49.2 | | | 67.0 | 4.00/15 | abcde | 1-Do | P | HS | 5 | SB | | Sp | Fr | H | 2090 |
| 340 America | 12-3.15x2.68 | 220-6000 | 207.5 | 8.00 | V | I | AA | C | 95.2 | 50.0 | 49.2 | | | | 4.00/16 | abcde | 3-Do | P | HS | 5 | SB | | Sp | Fr | H | 2090 |
| 212 Export | 12-2.68x2.32 | 150-6500 | 129.1 | | V | I | AA | C | 88.6 | 50.0 | 49.2 | | | | 4.00/15 | abcde | 1-Do | P | HS | 5 | SB | | Sp | Fr | H | 1760 |
| Fiat 500C | 4-2.05x2.64 | 17-4400 | 34.8 | 6.45 | IL | I | AA | C | 79.8 | 44.0 | 42.7 | 128.0 | 50.8 | 54.1 | 4.75/15 | abc | 1-Do | TS | HS | 4 | SB | 4.87 | Sp | Fr | H | 1342 |
| 1100E | 4-2.68x2.96 | 38-4400 | 66.5 | 6.10 | IL | I | AA | C | 95.4 | 48.5 | 48.4 | 161.5 | 59.3 | 59.1 | 5.25/15 | abc | 1-SD | TS | HS | 4 | SB | 4.87 | Sp | Fr | H | 2068 |
| 1400 | 4-3.23x2.60 | 44-4400 | 85.0 | 6.70 | IL | I | AA | C | 104.2 | 51.4 | 52.0 | 167.0 | 65.1 | 61.1 | 6.00/14 | abc | 1-SD | P | HS | 4 | Hy | 4.44 | Sp | Fr | H | 2562 |
| 1100ES | 4-2.68x2.96 | 51-5200 | 66.5 | 7.50 | IL | I | AA | C | 95.4 | 48.5 | 48.4 | | | | 5.25/15 | abc | 1-SD | P | HS | 4 | SB | 4.55 | Sp | Fr | H | 2048 |
| Lancia Ardea | 4-2.56x2.68 | 30-4600 | 55.0 | 6.70 | V | I | AA | C | 82.5 | 45.8 | 46.5 | 142.2 | 54.2 | 58.5 | 5.00/15 | abc | 1- | P | HS | 5 | Hy | 5.30 | | Fr | H | |
| Aurelia | 6-2.76x3.00 | 86-4000 | 107.0 | 6.65 | V | I | AA | C | 112.5 | 50.5 | 51.2 | 174.0 | 61.5 | 58.0 | 5.50/16 | abc | 1- | P | HS | 4 | SB | 4.90 | | FR | H | |
| Maserati A6 | 6-2.60x2.66 | 65-5000 | 90.6 | 7.50 | IL | I | AA | C | 100.4 | 50.0 | 49.4 | | | | 5.50/15 | abc | 1-SD | P | HS | 4 | SB | | | | H | |
| A6-GCS | 6-2.64x3.15 | 140-6000 | 121.0 | | IL | I | AA | C | 91.0 | 47.6 | 45.3 | | | | 5.50/16 | abc | 3-SD | P | HS | 4 | SB | | | | H | |
| 4CLT | 4-3.08x3.08 | 250-6000 | 91.5 | 6.00 | IL | I | AA | SG | 90.5 | 49.2 | 47.2 | | | | (bb) | abc | 1- | P | HS | 4 | SB | | | | | |

**ABBREVIATIONS**

******—Front wheel drive.
*******—Supercharged.
**4**—Chassis only.
*****—Two stroke engine.
**a**—Main bearings.
**b**—Connecting rod bearings.
**c**—Camshaft bearings.
**d**—Piston pins.
**e**—Chain or timing gears.
**(aa)**—Front 5.00/17, rear 6.50/16.
**(bb)**—Front 5.00/17, rear 6.00/16.
**AA**—Aluminum alloy.
**AS**—Aluminum and alloy steel strut.
**AT**—Alloy, tin plated.
**AW**—Alloy, wire wound.
**BG**—Bevel gear.
**C**—Chain.
**CH**—Chain and helical gear.
**DD**—Dual downdraft.
**DI**—Diesel injectors used.
**Do**—Downdraft.
**DU**—Dual updraft.
**F**—F-head, valves in side and head.
**Fr**—Front.
**FR**—Front and rear.
**H**—Hydraulic.
**HG**—Helical gear.
**HM**—Hydraulic front, mechanical rear.
**Ho**—Horizontal.
**HO**—Horizontally opposed.
**HP**—Hand and preselected shift.
**HS**—Hand shift.
**Hy**—Hypoid.
**I**—I-head, valves in head.
**IL**—In line.
**L**—L-head, valves at side.
**M**—Mechanical.
**MH**—Mechanical and hydraulic.
**N**—No or none.
**P**—Pump.
**Pr**—Preselective.
**R**—Rear.
**RA**—Radius arms.
**SB**—Spiral bevel.
**SD**—Single throat downdraft.
**SDR**—Spiral bevel, double reduction.
**SG**—Spur gear.
**Sh**—Shaft.
**SH**—Single throat horizontal.
**Sp**—Sprags.
**ST**—Single throat.
**StB**—Straight bevel.
**SU**—Single throat updraft.
**TA**—Torque arm.
**TP**—Thermo syphon and pump.
**TS**—Thermo syphon.
**TT**—Torque tube.
**Up**—Updraft.
**V**—Vee type.
**Var**—Various.
**VS**—Vertical shaft.
**Wo**—Worm.

***For Directory of the Manufacturers listed above, see page 190.***

| Line Number | ENGINE MAKE AND MODEL | Designed for | Number of Cylinders, Bore and Stroke (in.) | MAXIMUM BRAKE Hp. at Specified R.P.M. With Bare Engine | MAXIMUM BRAKE Hp. at Specified R.P.M. With Standard Accessories | Piston Displacement (Cu. In.) | Compression Ratio | Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories | Cylinder Liners—Type | Crankcase—Upper Half Integral with Cylinders | VALVES Arrangement | VALVES Exhaust Head Material (S.A.E. No.) | VALVES Max. Head Diameter (in.) Intake | VALVES Max. Head Diameter (in.) Exhaust | VALVES Min. Port Diameter (in.) Intake | VALVES Min. Port Diameter (in.) Exhaust | VALVES Lift (in.) Intake | VALVES Lift (in.) Exhaust | VALVES Stem Diameter (in.) Intake | VALVES Stem Diameter (in.) Exhaust |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Allis-Chalmers..... B-125 | Tr,Ind | 4-3½x3½ | 30-1800 | 28-1800 | 125.2 | 5.75 | 87-1100 (EA) | W | In | I | SII | 1.43 | 1.31 | 1.20 | 1.03 | .378 | .378 | .341 | .341 |
| 2 | ..... W-201 | Tr,Ind | 4-4x4 | 44-1800 | 40-1800 | 201.1 | 5.50 | 128-1200 (EA) | W | In | I | XCR | 1.68 | 1.50 | 1.50 | 1.32 | .376 | .376 | .372 | .372 |
| 3 | ..... U-318 | Tr,Ind | 4-4½x5 | 56-1400 | 51-1400 | 318.1 | 4.75 | 200- 900 (EA) | W | In | I | SII | 2.03 | 1.78 | 1.75 | 1.50 | .375 | .375 | .372 | .372 |
| 4 | ..... E-563 | Tr,Ind | 4-5½x8½ | 81-1050 | 74-1050 | 562.8 | 5.20 | 400- 650 (EA) | W | In | I | SII | 2.21 | 2.21 | 2.00 | 2.00 | .440 | .417 | .497 | .497 |
| 5 | ..... L-844 | Tr,Ind | 6-5½x8½ | 121-1050 | 110-1050 | 844.3 | 5.20 | 590- 650 (EA) | W | In | I | SII | 2.21 | 2.21 | 2.00 | 2.00 | .440 | .417 | .497 | .497 |
| 6 | Autocar..... 377 | T | 6-4x5 | 119-2800 | ..... | 377.0 | 6.00 | 288-1100 (BE) | N | Se | L | XB | 1.90 | 1.78 | 1.68 | 1.56 | .391 | .406 | .434 | .496 |
| 7 | ..... 447 | T | 6-4½x5½ | 145-2700 | ..... | 447.0 | 6.00 | 353-1100 (BE) | N | Se | L | XB | 2.12 | 1.93 | 1.93 | 1.79 | .452 | .452 | .434 | .496 |
| 8 | ..... 501 | T | 6-4½x5½ | 165-2700 | ..... | 501.0 | 5.90 | 400-1100 (BE) | N | Se | L | XB | 2.12 | 1.93 | 1.93 | 1.79 | .452 | .452 | .434 | .496 |
| 9 | Brennan..... 20 | Ind | 4-2½x3½ | 20-3900 | 15-3900 | 50.0 | 7.40 | 34-3200 (EA) | N | Se | L | SII | 1.12 | 1.00 | .875 | .875 | .250 | .250 | .312 | .312 |
| 10 | ..... Imp. | M | 4-2½x3½ | 25-4000 | 20-4000 | 50.0 | 7.40 | 34-3200 (EA) | N | Se | I | SII | 1.12 | 1.00 | .875 | .875 | .250 | .250 | .312 | .312 |
| 11 | ..... 75 | T,In | 6-3½x4½ | 90-3500 | 75-3300 | 230.3 | 6.7 | 175-1000 (EA) | N | In | L | SII | 1.50 | 1.37 | 1.37 | 1.25 | .343 | .343 | .312 | .312 |
| 12 | ..... Fisherman | M | 6-3½x4½ | 95-3200 | 92-3200 | 230.3 | 5.50 | 184-1250 | N | Se | L | SII | 2.00 | 2.00 | 1.87 | 1.87 | .375 | .375 | .375 | .375 |
| 13 | ..... CE | Ind | 4-4½x5 | 54-1600 | 45-1600 | 318.0 | 5.00 | 203-1000 (EA) | N | Se | L | SII | 2.00 | 2.00 | 1.87 | 1.87 | .375 | .375 | .375 | .375 |
| 14 | ..... E-4 | M | 4-4½x5 | 54-1600 | 45-1600 | 318.0 | 5.00 | 203-1000 (EA) | N | Se | I | SII | 2.12 | 2.12 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 15 | ..... B-70 | T,B,Tr,Ind | 6-4x5½ | 90-2000 | 75-2000 | 415.0 | 4.50 | 278- 900 (EA) | N | Se | I | SII | 2.12 | 2.12 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 16 | ..... 100 | M | 6-4x5½ | 94-2000 | 80-2000 | 415.0 | 6.00 | 278- 900 (EA) | N | Se | I | SII | 2.12 | 2.12 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 17 | ..... B-100 | T,B,Tr,Ind | 6-4½x5½ | 94-2000 | 80-2000 | 496.0 | 4.50 | 350-1200 (EA) | N | Se | I | SII | 2.12 | 2.12 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 18 | ..... 125 | M | 6-4½x5½ | 110-2200 | 94-2200 | 496.0 | 6.00 | 350-1200 (EA) | N | Se | I | SII | 2.50 | 2.50 | 2.12 | 2.12 | .437 | .437 | .509 | .500 |
| 19 | ..... 150 | M | 6-4½x6½ | 150-2000 | 130-2000 | 620.3 | 6.00 | 500-1200 (EA) | N | Se | I | SII | 2.50 | 2.50 | 2.12 | 2.12 | .437 | .437 | .509 | .500 |
| 20 | Buda..... 4B-153 | Tr,Ind | 4-3½x4½ | 47-2800 | 42-2800 | 153.0 | 6.00 | 112-1500 (BE) | W | In | I | 2112 | 1.50 | 1.28 | 1.37 | 1.12 | .429 | .429 | .312 | .312 |
| 21 | ..... 4B-182 | Tr,Ind | 4-3½x4½ | 54-2800 | 49-2800 | 182.0 | 5.54 | 140- 800 (BE) | W | In | I | 2112 | 1.50 | 1.28 | 1.37 | 1.12 | .429 | .429 | .312 | .312 |
| 22 | ..... 6B-230 | Tr,Ind | 6-3½x4½ | 72-3000 | 65-3000 | 230.0 | 6.00 | 168-1000 (BE) | W | In | I | 2112 | 1.50 | 1.28 | 1.37 | 1.12 | .429 | .429 | .312 | .312 |
| 23 | ..... 6B-273 | Tr,Ind | 6-3½x4½ | 82-2800 | 75-2800 | 273.0 | 5.40 | 204-1200 (BE) | N | In | I | 2112 | 1.65 | 1.53 | 1.50 | 1.37 | .344 | .344 | .372 | .372 |
| 24 | ..... HP-326 | B,Tr,Ind | 6-3½x4½ | 78-2400 | 66-2400 | 326.0 | 5.40 | 220-1100 (BE) | N | In | L | 2112 | 1.65 | 1.53 | 1.50 | 1.37 | .344 | .344 | .372 | .372 |
| 25 | ..... HP-351 | Tr,Ind | 6-3½x5½ | 84-2400 | 71-2400 | 351.0 | 5.83 | 232- 900 (BE) | N | In | L | 2112 | 1.90 | 1.78 | 1.75 | 1.62 | .400 | .400 | .372 | .372 |
| 26 | ..... K-428 | B,Tr,Ind | 6-4½x4½ | 107-2400 | 88-2400 | 428.0 | 5.33 | 276-1100 (BE) | N | In | L | 2112 | 1.90 | 1.78 | 1.75 | 1.62 | .400 | .400 | .372 | .372 |
| 27 | ..... L-525 | Tr,Ind | 6-4½x5½ | 113-2400 | 94-2400 | 525.0 | 4.75 | 340- 900 (BE) | N | In | L | 2112 | 1.96 | 1.68 | 1.75 | 1.50 | .468 | .468 | .372 | .372 |
| 28 | ..... LO-525 | T,B,Tr,Ind | 6-4½x5½ | 157-2400 | 139-2400 | 525.0 | 5.00 | 400-1200 (BE) | N | In | I | 2112 | 2.64 | 2.02 | 2.37 | 1.87 | .540 | .540 | .437 | .437 |
| 29 | ..... 4-MO-645 | Tr,Ind | 4-5½x6½ | 123-1400 | 110-1400 | 645.0 | 5.43 | 448- 800 (BE) | W | In | I | 2112 | 2.64 | 2.02 | 2.37 | 1.87 | .540 | .540 | .433 | .433 |
| 30 | ..... 6-MO-893 | T,Ind,M | 6-5½x6 | 199-2000 | 170-2000 | 893.0 | 5.50 | 670-1000 (BE) | W | In | I | 2112 | 2.64 | 2.02 | 2.37 | 1.87 | .540 | .540 | .433 | .433 |
| 31 | ..... 6-MO-970 | T,Ind,M | 6-5½x6½ | 200-1800 | 171-1800 | 970.0 | 5.43 | 720- 800 (BE) | W | In | I | CNS | 2.45 | 2.02 | 2.37 | 1.87 | .540 | .540 | .433 | .433 |
| 32 | ..... 8MO-1290 | Ind | 8-5½x6½ | 293-1800 | 248-1800 | 1290.0 | 5.43 | 1000-1100 (BE) | W | In | I | 2112 | 2.71 | 2.53 | 2.50 | 2.28 | .703 | .703 | .558 | .558 |
| 33 | ..... PC-1879 | Ind | 6-6½x8½ | 232-1000 | 197-1000 | 1879.0 | 6.00 | 1300- 800 (BE) | W | In | I | 2112 | 2.71 | 2.53 | 2.50 | 2.28 | .733 | .703 | .558 | .558 |
| 34 | ..... PCC-1879 | Ind | 6-6½x8½ | 232-1000 | 197-1000 | 1879.0 | 6.00 | 1300- 800 (BE) | W | In | I | 2112 | 2.71 | 2.53 | 2.50 | 2.28 | .703 | .703 | .558 | .558 |
| 35 | ..... 12PCS-1879 | Ind | 6-6½x8½ | 340-1200 | 310-1200 | 1879.0 | 5.27 | 1540- 950 (BE) | W | In | I | CNS | 2.71 | 2.53 | 2.50 | 2.28 | .703 | .703 | .558 | .558 |
| 36 | ..... 8PC-2505 | Ind | 8-6¾x8½ | 356-1200 | 320-1200 | 2505.0 | 6.00 | 1860- 750 (BE) | W | In | I | CNS | 2.71 | 2.53 | 2.50 | 2.28 | .703 | .703 | .558 | .558 |
| 37 | ..... 18PCS-2505 | Ind | 8-6¾x8½ | 485-1200 | 420-1200 | 2505.0 | 5.27 | 2110- 950 (BE) | W | In | I | CNS | 2.71 | 2.53 | 2.50 | 2.28 | .703 | .703 | .558 | .558 |
| 38 | Buffalo..... RAB-4 | Ind | 4-6½x7 | 145-1200 | 130-1200 | 929.0 | 5.00 | 635-1200 (EA) | N | Se | I | SII | 3.09 | 2.84 | 2.87 | 2.62 | .625 | .540 | .500 | .509 |
| 39 | ..... RAB-8 | Ind | 6-6½x7 | 215-1200 | 195-1200 | 393.0 | 5.00 | 955-1200 (EA) | N | Se | I | SII | 3.09 | 2.84 | 2.87 | 2.62 | .625 | .540 | .500 | .500 |
| 40 | ..... RAB-8 | Ind | 8-6½x7 | 300-1200 | 270-1200 | 858.0 | 5.00 | 1275-1200 (EA) | N | In | I | SII | 2.46 | 2.25 | 2.25 | 2.00 | .437 | .437 | .437 | .437 |
| 41 | ..... RABV-12 | Ind | 12-6½x7 | 430-1200 | 390-1200 | 2787.0 | 5.00 | 19 0-1200 (EA) | W | In | I | SII | 2.46 | 2.25 | 2.25 | 2.00 | .437 | .437 | .437 | .437 |
| 42 | ..... RABV-16 | Ind | 16-6½x7 | 570-1200 | 515-1200 | 3716.0 | 5.00 | 2550-1200 (EA) | W | In | I | SII | | | | | | | | |
| 43 | Chevrolet..... 1951 | T,B,C | 6-3½x3½ | 105-3600 | 96-3500 | 235.5 | 6.70 | 186-2000 (EA) | N | In | I | AS | 1.94 | 1.50 | 1.44 | 1.25 | .294 | .312 | .341 | .340 |
| 44 | ..... 1951 | COE | 6-3½x3½ | 100-3500 | 96-3400 | 235.5 | 6.70 | 187-2000 (EA) | N | In | I | AS | 1.94 | 1.50 | 1.44 | 1.25 | .294 | .312 | .341 | .340 |
| 45 | ..... 1951 | FC | 6-3½x3½ | 92-3400 | 85-3300 | 235.5 | 6.70 | 176-1700 (EA) | N | In | I | AS | 1.64 | 1.50 | 1.25 | 1.25 | .294 | .312 | .341 | .340 |
| 46 | ..... 1951 | T,B,C | 6-3½x3½ | 92-3400 | 85-3300 | 216.5 | 6.60 | 170-1500 (EA) | N | In | I | AS | | | | | | | | |
| 47 | Chris-Craft..... *B | M | 4-3½x4 | ..... | 60-3200 | 132.7 | 7.50 | 106-2400 (EA) | N | In | L | 2112N | 1.48 | 1.36 | 1.25 | 1.12 | .312 | .312 | .310 | .310 |
| 48 | ..... *K | M | 6-3½x4½ | ..... | 95-3200 | 229.7 | 7.35 | 173-1800 (EA) | N | In | L | 2112N | 1.61 | 1.39 | 1.25 | 1.25 | .311 | .311 | .310 | .310 |
| 49 | ..... *KL | M | 6-3½x4¼ | ..... | 105-3200 | 236.8 | 7.52 | 190-2200 (EA) | N | In | L | 2112N | 1.61 | 1.39 | 1.25 | 1.25 | .344 | .344 | .310 | .310 |
| 50 | ..... KLC | M | 6-3½x4¼ | ..... | 120-3800 | 236.6 | 7.52 | 175-3000 (EA) | N | In | L | 2112N | 1.61 | 1.39 | 1.25 | 1.25 | .344 | .344 | .310 | .310 |
| 51 | ..... KBL | M | 6-3½x4¼ | ..... | 131-3800 | 236.6 | 7.52 | 191-3000 (EA) | N | In | L | 2112N | 1.61 | 1.39 | 1.25 | 1.25 | .344 | .344 | .310 | .310 |
| 52 | ..... *M | M | 6-4x4¼ | ..... | 130-3000 | 320.4 | 7.50 | 239-2400 (EA) | N | In | L | 2112N | 1.83 | 1.68 | 1.81 | 1.50 | .356 | .356 | .372 | .372 |
| 53 | ..... *ML | M | 6-4x4¼ | ..... | 145-3000 | 339.2 | 7.90 | 267-2400 (EA) | N | In | L | Eat | 1.83 | 1.68 | 1.81 | 1.50 | .356 | .356 | .372 | .372 |
| 54 | ..... MBL | M | 6-4x4¼ | ..... | 158-3400 | 339.2 | 7.90 | 266-2600 (EA) | N | In | L | Eat | 1.83 | 1.68 | 1.81 | 1.50 | .387 | .387 | .372 | .372 |
| 55 | ..... *W | M | 6-4½x4½ | ..... | 160-3000 | 404.3 | 6.40 | 322-1500 (EA) | N | In | L | 2112N | 1.92 | 1.78 | 1.87 | 1.68 | .388 | .388 | .372 | .372 |
| 56 | Chrysler..... M46 Ace | M | 6-3½x4½ | ..... | 87-2800 | 217.7 | 6.60 | 160-1600 (EA) | N | In | L | SII | 1.53 | 1.41 | 1.41 | 1.28 | .375 | .375 | .340 | .340 |
| 57 | ..... M46 Ace Spec | M | 6-3½x4½ | ..... | 105-3600 | 217.7 | 7.00 | 182-1600 (EA) | N | In | L | SII | 1.72 | 1.53 | 1.44 | 1.38 | .375 | .375 | .340 | .340 |
| 58 | ..... M47 Crown | M | 6-3½x4½ | ..... | 104-2800 | 250.6 | 6.50 | 210-1600 (EA) | N | In | L | SII(x) | 1.72 | 1.53 | 1.44 | 1.38 | .375 | .375 | .340 | .434 |
| 59 | ..... M47 Crown Spec | M | 6-3½x4½ | ..... | 125-3600 | 250.6 | 7.00 | 210-1600 (EA) | N | In | L | SII(x) | 1.72 | 1.53 | 1.44 | 1.38 | .375 | .375 | .340 | .434 |
| 60 | ..... M48 Royal | M | 8-3½x4½ | ..... | 135-2800 | 323.5 | 6.80 | 268-2000 (EA) | N | In | L | SII(x) | 1.53 | 1.34 | 1.41 | 1.22 | .375 | .375 | .340 | .434 |
| 61 | ..... M48 Royal Spec | M | 8-3½x4½ | ..... | 165-3600 | 323.5 | 7.00 | 280-2400 (EA) | N | In | L | SII(x) | 1.94 | 1.75 | 1.78 | 1.59 | .410 | .379 | .371 | .434 |
| 62 | ..... M49 Majestic | M | 6-4x5 | ..... | 160-3000 | 376.9 | 6.50 | 308-1600 (EA) | N | In | L | XB(x) | 1.53 | 1.41 | 1.41 | 1.28 | .379 | .379 | .340 | .340 |
| 63 | ..... Ind. 5A | Ind. | 6-3½x4½ | 96-3600 | 82-3600 | 217.7 | 6.60 | 141-1200 (EA) | N | In | L | XB | 1.53 | 1.41 | 1.41 | 1.28 | .375 | .375 | .340 | .340 |
| 64 | ..... Ind. 6A | Ind | 6-3½x4½ | 102-3600 | 83-3200 | 230.2 | 6.70 | 152-1200 (EA) | N | In | L | XB | 1.53 | 1.41 | 1.41 | 1.28 | .364 | .364 | .340 | .340 |
| 65 | ..... Ind. 7A | Ind | 6-3½x4½ | 109-3600 | 91-3200 | 236.6 | 6.60 | 158-1200 (EA) | N | In | L | XCR | 1.72 | 1.50 | 1.56 | 1.38 | .379 | .379 | .340 | .340 |
| 66 | ..... Ind. 8A | Ind | 6-3½x4½ | 114-3600 | 98-3200 | 250.6 | 6.60 | 167-1400 (EA) | N | In | L | XB | 1.72 | 1.50 | 1.56 | 1.38 | .379 | .379 | .340 | .340 |
| 67 | ..... Ind. 12A | Ind | 8-3½x4½ | 130-3400 | 97-2500 | 323.5 | 6.80 | 219-1600 (EA) | N | In | L | XB(x) | 1.53 | 1.34 | 1.41 | 1.22 | .375 | .375 | .340 | .340 |
| 68 | ..... Ind. 13A | Ind | 6-3½x4½ | 122-3200 | 91-2600 | 306.5 | 6.50 | 202-1200 (EA) | N | In | L | XB(x) | 1.94 | 1.75 | 1.78 | 1.59 | .410 | .410 | .371 | .433 |
| 69 | ..... Ind. 14A | Ind | 6-3½x5 | 126-3000 | 96-2500 | 331.4 | 6.46 | 220-1200 (EA) | N | In | L | XB(x) | 1.94 | 1.75 | 1.78 | 1.59 | .410 | .410 | .371 | .433 |
| 70 | ..... Ind. 15A | Ind | 6-4x5 | 153-2800 | 116-2400 | 376.9 | 6.50 | 271-1200 (EA) | N | In | L | XB(x) | | | | | | | | |
| 71 | Climax..... R41 | Ind | 4-6x7 | 123-1200 | 112-1200 | 791.6 | 4.70 | 525- 750 (EA) | N | Se | I | SII | 2.50 | 2.50 | 2.25 | 2.25 | .500 | .500 | .562 | .562 |
| 72 | ..... R61 | Ind | 6-6x7 | 183-1200 | 165-1200 | 1187.4 | 4.70 | 802- 700 (EA) | N | Se | I | CNS | 2.50 | 2.50 | 2.25 | 2.25 | .500 | .500 | .562 | .562 |
| 73 | ..... R81 | Ind | 8-6x7 | 245-1200 | 221-1200 | 1583.2 | 4.70 | 1085- 750 (EA) | N | Se | I | SII | 2.50 | 2.50 | 2.25 | 2.25 | .500 | .500 | .562 | .562 |
| 74 | ..... V-425 | Ind | 12-6½x7 | 425-1200 | 380-1200 | 2787.0 | 4.90 | 2120- 750 | W | Se | I | SII | 2.81 | 2.68 | 2.50 | 2.37 | .687 | .687 | .562 | .562 |
| 75 | ..... V-495 | Ind | 12-7x7 | 495-1200 | 445-1200 | 3232.0 | 4.90 | 2460- 750 | W | Se | I | SII | 2.81 | 2.69 | 2.50 | 2.37 | .687 | .687 | .562 | .562 |
| 76 | ..... V-280 | Ind | 8-6½x7 | 280-1200 | 256-1200 | 1860.0 | 4.90 | 1350- 800 | W | Se | I | SII | 2.81 | 2.68 | 2.50 | 2.37 | .687 | .687 | .562 | .562 |
| 77 | ..... V-330 | Ind | 8-7x7 | 330-1200 | 295-1200 | 2156.0 | 4.90 | 1570- 800 | W | Se | I | SII | 2.78 | 2.63 | 2.50 | 2.38 | .687 | .687 | .560 | .560 |
| 78 | ..... V-125 | Ind | 12-7½x7 | 605-1200 | 545-1200 | 3711.0 | 5.20 | 2900- 850 (BE) | W | Se | I | SII | | | | | | | | |

For abbreviations, see pages 164 and 165

**For Directory of the Manufacturers listed above, see page 190.**

# GASOLINE ENGINES

| Angle (Deg.) | Inserts Used? | Insert Material (S.A.E. No.) | Camshaft Drive—Type | Piston Material | Piston Weight with Pins, Rings, Bushings (Oz.) | Piston Pin—Diameter and Length (In.) | Number of Rings per Piston | Connecting Rod Material | Connecting Rod Center to Center Length (In.) | Connecting Rod Weight with Bushing and Cap (Oz.) | Crankshaft Material | Crankshaft Counter Balance Used | Crankpin Diameter and Length (In.) | Main Bearings Number | Main Bearings Diameter and Length (In.) Front | Main Bearings Diameter and Length (In.) Rear | Oil Pressure lb— | Carburetor Make | Carburetor Size | Engine Weight without Carburetor or Ignition (Lb. | Overall Dimensions (In.) Width | Overall Dimensions (In.) Height | Overall Dimensions (In.) Length | Clutch Housing (S.A.E. Nos.) | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 45 | N | ..... | HG | Al | 25 | .813x2.87 | 4 | 1040 | 6½ | 29 | 1045 | N | 1.93x1.43 | 3 | 2.25x1.62 | 2.25x1.50 | adfg | Zen | ⅞ | 370 | 18⅛ | 31½ | 27 | 5 | 1 |
| 48 | E | TA | HG | Al | 40.1 | .969x3.50 | 4 | 1040 | 7½ | 42 | 1045 | N | 2.37x1.75 | 3 | 2.43x1.93 | 2.50x1.75 | acdfg | Zen | 1 | 540 | 23 | 31½ | 33½ | 4 | 2 |
| 30 | E | TA | HG | Cl | 99 | 1.31x4.06 | 5 | 1045 | 9½ | 92 | 1045 | N | 2.37x2.37 | 3 | 2.50x2.31 | 2.50x2.75 | abcdfg | Zen | 1¼ | 985 | 28 | 37½ | 43¾ | ... | 3 |
| 45 | E | TA | HG | Cl | 162 | 1.50x4.87 | 4 | 1040 | 13 | 182 | 1045 | N | 2.75x3.24 | 3 | 3.00x3.50 | 3.00x4.75 | abcdfg | Zen | 1½ | 2020 | 27 | 47½ | 53 | 1 | 4 |
| 45 | E | TA | HG | Cl | 162 | 1.50x4.87 | 4 | 1040 | 13 | 182 | 1045 | N | 2.75x3.24 | 4 | 3.30x3.50 | 3.00x4.75 | abcdfg | Zen(2) | 1½ | 2810 | 29¾ | 63½ | 72¼ | 1 | 5 |
| 45 | E | 71360 | HG | Al | 43 | 1.12x3.43 | 4 | NE8640 | 10¼ | 65 | CS | Y | 2.37x1.62 | 7 | 3.35x1.78 | 3.25x2.48 | abcdg | Zen | 1½ | 1230 | 23½ | 34¾ | 45 | 3 | 6 |
| 45 | E | 4140 | HG | Al | 51 | 1.12x3.68 | 4 | NE8640 | 10¼ | 78 | CS | Y | 2.50x1.81 | 7 | 3.25x1.75 | 3.25x2.87 | abcdg | Hol | 1¾ | 1385 | 27¾ | 38 | 48 | 2 | 7 |
| 45 | E | 4140 | HG | Al | 57 | 1.12x3.93 | 4 | NE8640 | 10¼ | 78 | CS | Y | 2.50x1.81 | 7 | 3.25x1.75 | 3.25x2.87 | abcdg | Hol | 1¾ | 1395 | 27¾ | 38 | 48 | 2 | 8 |
| 45 | N | ..... | HG | Al | 6 | .625x2.00 | 3 | 1045 | 5¾ | 14 | 1045 | Y | 1.31x1.25 | 3 | 2.50x1.50 | 2.50x1.50 | abcdg | Zen | ¾ | 128 | 12¾ | 17⅛ | 18⅝ | ... | 9 |
| 45 | N | ..... | HG | Al | 6 | .625x2.00 | 3 | 1045 | 5¾ | 14 | 1045 | N | 1.31x1.25 | 3 | 2.50x1.50 | 2.50x1.50 | abcdg | Zen | ¾ | 165 | 12¾ | 17⅝ | 29 | ..... | 10 |
| 45 | Y | TS | Ch | Al | 23 | .875x2.75 | 4 | 2320 | 7¾ | 29 | 1045 | Y | 2.06x1.25 | 4 | 2.50x1.87 | 2.50x1.87 | acdg | Str | 1¼ | 710 | 18¾ | 22 | 37½ | ..... | 11 |
| 45 | E | TS | Ch | Al | 23 | .875x2.75 | 4 | 2320 | 7¾ | 29 | 1045 | Y | 2.06x1.25 | 4 | 2.50x1.87 | 2.50x1.75 | acdg | Str | 1¼ | 710 | 18¾ | 22 | 46½ | ..... | 12 |
| 45 | S | SS | HG | SS | 80 | 1.17x4.06 | 5 | 1045 | 11 | 64 | 1045 | N | 2.50x2.50 | 3 | 2.50x4.25 | 2.50x3.50 | abcdg | Str | 1¼ | 880 | 21 | 29½ | 37⅝ | ..... | 13 |
| 45 | N | ..... | HG | SS | 72 | 1.17x4.00 | 5 | 1045 | 11 | 64 | 1045 | N | 2.50x2.50 | 3 | 2.50x4.25 | 2.50x3.50 | abcdg | Str | 1¼ | 950 | 18 | 18 | 53 | ..... | 14 |
| 45 | N | ..... | HG | SS | 64 | 1.17x3.87 | 4 | CNS | 11 | 65 | CNS | N | 2.50x2.00 | 3 | 2.75x4.50 | 2.75x3.00 | acdg | Str | 1½ | 800 | 25¾ | 33¾ | 49 | ..... | 15 |
| 45 | N | ..... | HG | SS | 64 | 1.17x3.87 | 4 | AS | ..... | ..... | CNS | N | 2.50x2.00 | 3 | 2.75x4.50 | 2.75x3.00 | abcdfg | Str | 1½ | 800 | 19¾ | 24¾ | 65 | ..... | 16 |
| 45 | N | ..... | HG | SS | 76 | 1.25x3.87 | 5 | CNS | 11 | 65 | CNS | N | 2.50x2.00 | 3 | 2.75x4.50 | 2.75x3.00 | acdg | Str | 1½ | 875 | 25¾ | 33¾ | 49 | ..... | 17 |
| 45 | N | ..... | HG | SS | 70 | 1.25x3.87 | 5 | AS | 11 | 65 | CNS | N | 2.50x2.00 | 3 | 2.75x4.50 | 2.75x4.50 | abcdg | Str | 1½ | 900 | 19¾ | 24¾ | 65 | ..... | 18 |
| 45 | N | ..... | BG | SS | 72 | 1.37x4.38 | 5 | AS | 12 | 80 | CNS | Y | 2.62x2.67 | 7 | 2.62x5.00 | 2.63x3.50 | abcd | Str | 1¾ | 1450 | 20 | 30 | 74 | ..... | 19 |
| 45 | N | ..... | HG | Cl | ..... | 1.00x2.84 | 4 | CS | 7⅛ | ..... | 1045 | N | 2.00x1.31 | 3 | 2.50x1.25 | 2.50x1.75 | abcdfg | Zen | 1 | 500 | 18⅛ | 28⅞ | 30⅞ | 3 | 20 |
| 45 | N | ..... | HG | Cl | ..... | 1.00x3.09 | 4 | CS | 7⅛ | ..... | 1045 | N | 2.00x1.31 | 3 | 2.50x1.25 | 2.50x1.75 | abcdfg | Zen | 1¼ | 520 | 18⅛ | 28⅞ | 30⅞ | 3 | 21 |
| 45 | N | ..... | HG | Cl | ..... | 1.00x ... | 4 | 1045 | 7⅛ | ..... | 1045 | N | 2.00x1.31 | 7 | 2.50x1.25 | 2.50x1.75 | abcdfg | Zen | 1 | 625 | 18⅛ | 28⅞ | 38⅞ | 3 | 22 |
| 45 | N | ..... | HG | Cl | ..... | 1.00x3.09 | 4 | 1045 | 7⅛ | ..... | 1045 | N | 2.00x1.31 | 7 | 2.50x1.25 | 2.50x1.75 | abcdfg | Zen | 1¼ | 635 | 18⅛ | 28⅞ | 38⅞ | 3 | 23 |
| 45 | E | DC | HG | Cl | 42 | 1.12x3.25 | 4 | CS | 9½ | 42 | CS | N | 2.12x1.62 | 7 | 3.00x1.50 | 3.00x2.12 | abcdg | Zen | 1½ | 885 | 25¾ | 33⅛ | 39⅛ | 3 | 24 |
| 45 | E | DC | HG | Cl | 42 | 1.12x3.25 | 4 | CS | 9½ | 42 | CS | N | 2.12x1.62 | 7 | 3.05x1.50 | 3.00x2.12 | abcdg | Zen | 1½ | 905 | 25¾ | 33⅛ | 39⅛ | 3 | 25 |
| 45 | E | DC | HG | Al | 88 | 1.25x3.62 | 4 | CS | 9½ | 58 | CS | N | 2.37x1.75 | 7 | 3.00x1.75 | 3.00x2.50 | abcdg | Zen | 1¾ | 905 | 25¾ | 30½ | 47⅛ | 3 | 26 |
| 45 | E | DC | HG | Cl | 88 | 1.25x3.81 | 4 | CS | 11 | 66 | CS | N | 2.37x1.75 | 7 | 3.00x1.75 | 3.00x2.50 | abcdg | Zen | 1¾ | 950 | 25¾ | 33½ | 47⅛ | 3 | 27 |
| 30 | E | Jad | HG | Al | 88 | 1.25x3.81 | 5 | AS | 11 | 78 | CS | N | 2.37x1.75 | 7 | 3.00x1.75 | 3.00x2.50 | abcdfg | Zen | 1¾ | 1195 | 27⅞ | 38½ | 49⅝ | 3 | 28 |
| 30 | E | Jad | HG | Cl | 152 | 1.75x4.75 | 5 | 1040 | 12½ | 171 | 1045 | N | 3.25x2.12 | 5 | 3.75x3.30 | 3.75x2.75 | abcdfg | Zen | 2 | 1925 | 30½ | 48¾ | 44⅞ | 0 | 29 |
| 30 | E | Jad | HG | Cl | 152 | 1.75x4.75 | 5 | 1040 | 12½ | 171 | 1045 | N | 3.25x2.12 | 7 | 3.75x3.00 | 3.75x2.75 | abcdfg | Zen | 2 | 2400 | 28½ | 48¾ | 58⅛ | 1 | 30 |
| 30 | E | Jad | HG | Cl | 152 | 1.75x4.75 | 5 | 1040 | 12½ | 171 | 1045 | N | 3.25x2.12 | 7 | 3.75x3.75 | 3.75x2.75 | abcdfg | Zen | 2 | 2400 | 48¾ | 58⅞ | 58⅛ | 1 | 31 |
| 30 | E | Jad | HG | Cl | 152 | 1.75x4.75 | 5 | 1040 | 12½ | 171 | 1045 | ... | 3.25x2.12 | 9 | 3.75x2.25 | 3.75x2.25 | abcdefg | Zen | 2½ | 3000 | 38½ | 54½ | 83½ | 0 | 32 |
| 45 | E | DC | HG | Ala | 263 | 2.75x5.53 | 5 | CS | 17¾ | 430 | 1045 | N | 4.25x3.25 | 7 | 4.50x2.68 | 3.75x3.48 | abcdfg | Zen(2) | 2 | 9000 | 48 | 48⅞ | 86⅞ | 00 | 33 |
| 45 | E | DC | HG | Ala | 263 | 2.75x5.53 | 5 | CS | 17¾ | 430 | 1045 | N | 4.25x3.25 | 7 | 4.50x2.68 | 3.75x3.48 | abcdfg | Ens | 2 | 9000 | 48 | 68⅞ | 88⅞ | 00 | 34 |
| 45 | E | DC | HG | Al | 263 | 2.75x5.53 | 5 | 1035 | 17¾ | 430 | 1045 | N | 4.25x3.25 | 7 | 4.50x2.68 | 4.50x3.48 | abcdg | Ens | 2 | 9400 | 47 | 65⅛ | 88⅛ | 00 | 35 |
| 45 | E | DC | HG | Al | 263 | 2.75x5.53 | 5 | 1035 | 17¾ | 430 | 1045 | N | 4.33x3.25 | 9 | 4.68x2.68 | 4.68x2.68 | abcdefg | Ens | 3½ | 11200 | 108¼ | 47⅛ | 74⅛ | 00 | 36 |
| 45 | E | DC | HG | Al | 263 | 2.75x5.53 | 5 | 1035 | 17¾ | 430 | 1045 | N | 4.33x3.25 | 9 | 4.68x2.68 | 4.68x2.68 | abcdefg | Ens | 3½ | 12000 | 112¾ | 47⅛ | 74⅛ | 00 | 37 |
| 45 | N | ..... | HG | Al | 154 | 1.68x6.25 | 5 | 3135 | 14 | 147 | 3140 | Y | 3.00x2.37 | 5 | 3.75x4.12 | 3.75x4.50 | acg | Zen | 2½ | 2700 | 24 | 46 | 78 | ..... | 38 |
| 45 | N | ..... | HG | Al | 154 | 1.68x6.25 | 5 | 3135 | 14 | 147 | 3140 | Y | 3.00x2.37 | 7 | 3.75x4.12 | 3.75x4.89 | acg | Zen(2) | 2 | 3200 | 24 | 46 | 94 | ..... | 39 |
| 45 | N | ..... | HG | Al | 154 | 1.68x6.25 | 5 | 3135 | 14 | 147 | 3140 | Y | 3.00x2.37 | 9 | 3.75x4.12 | 3.75x4.50 | acg | Zen(2) | 2½ | 4300 | 24 | 46 | 111 | ..... | 40 |
| 45 | E | WM | HG | Al | 171 | 2.00x5.87 | 5 | 3140 | 14 | 173 | 4140 | Y | 3.75x2.00 | 7 | 4.25x3.25 | 4.25x3.25 | acfg | Zen(3) | 2 | 6200 | 43 | 66 | 83½ | ..... | 41 |
| 45 | E | WM | HG | Al | 171 | 2.00x5.87 | 5 | 3140 | 14 | 173 | 4140 | Y | 3.75x2.00 | 9 | 4.25x3.25 | 4.25x3.25 | acfg | Zen(4) | 2 | 9400 | 43 | 66 | 104 | ..... | 42 |
| (h) | N | ..... | HG | ACI | 41.02 | .865x3.15 | 3 | DFS | 6⅛ | 31 | DFS | Y | 2.31x1.44 | 4 | 2.69x1.19 | 2.78x1.63 | acdf | R-P | 1⅛ | 598 | 21⅞ | 30½ | 39⅛ | ..... | 43 |
| (h) | N | ..... | HG | ACI | 41.02 | .865x3.15 | 3 | DFS | 6⅛ | 31 | DFS | Y | 2.31x1.44 | 4 | 2.69x1.19 | 2.78x1.63 | acdf | Car | 1⅛ | 613 | 21⅞ | 28¼ | 39⅛ | ..... | 44 |
| (h) | N | ..... | HG | ACI | 41.02 | .865x3.15 | 3 | DFS | 6⅛ | 31 | DFS | Y | 2.31x1.44 | 4 | 2.69x1.19 | 2.78x1.63 | acdf | Car | 1⅛ | 604 | 19½ | 28¼ | 39⅛ | ..... | 45 |
| (h) | N | ..... | HG | ACI | 37.95 | .865x3.15 | 3 | DFS | 6⅛ | 31 | DFS | Y | 2.31x1.44 | 4 | 2.69x1.19 | 2.78x1.63 | acdf | R-P | 1⅛ | 583 | 21⅞ | 30½ | 39⅛ | ..... | 46 |
| 30 | N | ..... | HG | Alt | 21 | .750x2.83 | 3 | 3140 | 6⅞ | 22 | Stel | N | 1.75x1.12 | 3 | 1.96x1.62 | 1.96x1.37 | acr | Zen | 1¼ | 496 | 24½ | 21½ | 31⅞ | ..... | 47 |
| 30 | N | ..... | HG | Ala | 26 | .875x2.92 | 3 | 1035 | 7 | 29 | Stel | N | 1.96x1.25 | 5 | 2.49x1.53 | 2.49x1.15 | acdr | Zen | 1½ | 626 | 24½ | 24 | 40 | ..... | 48 |
| 30 | N | ..... | HG | Ala | 26 | .875x2.92 | 3 | 1035 | 7 | 29 | Stel | N | 1.96x1.25 | 7 | 2.49x1.53 | 2.49x1.15 | acdr | Zen | 1½ | 626 | 24½ | 28⅞ | 40 | ..... | 49 |
| 30 | N | ..... | HG | Ala | 26 | 8.75x2.92 | 3 | 1035 | 7 | 29 | Stel | ... | 1.96x1.25 | 7 | 2.49x1.53 | 2.49x1.15 | adr | Zen | 1½ | 626 | 25½ | 24⅛ | 40 | ..... | 50 |
| 30 | N | ..... | HG | Alt | 26 | .875x2.92 | 3 | 1035 | 7 | 29 | Stel | N | 1.96x1.25 | 7 | 2.49x1.53 | 2.49x1.15 | acdr | Zen | 1½ | 626 | 24½ | 31⅞ | 40 | ..... | 51 |
| 30 | N | ..... | HG | Ala | 36 | 1.00x3.52 | 3 | 1040 | 8 | 40 | Stel | N | 1.96x1.50 | 7 | 2.49x1.74 | 2.49x1.15 | acr | Zen | 1¾ | 850 | 26⅞ | 25⅞ | 43½ | ..... | 52 |
| 30 | N | ..... | HG | Ala | 40 | 1.12x3.44 | 3 | 1040 | 8 | 40 | Stel | N | 1.96x1.50 | 7 | 2.49x1.74 | 2.49x1.15 | acr | Zen | 2 | 850 | 26⅞ | 25⅞ | 46⅛ | ..... | 53 |
| 30 | N | ..... | HG | Ala | 40 | 1.12x3.44 | 3 | 1040 | 8 | 40 | Stel | N | 1.96x1.50 | 7 | 2.49x1.74 | 2.49x1.15 | acr | Zen | 2 | 850 | 26⅞ | 25⅞ | 46⅛ | ..... | 54 |
| 30 | N | ..... | HG | Alt | 44 | 1.12x3.70 | 4 | 3140 | 8½ | 52 | Stel | Y | 2.24x1.50 | 7 | 2.62x2.21 | 2.62x1.43 | acer | Zen | 2 | 1232 | 26⅞ | 26⅞ | 53½ | ..... | 55 |
| 45 | E | CMT | HG | Alt | 22.2 | .859x2.75 | 4 | MS | 7.937 | 30.1 | DFS | Y | 2.06x1.00 | 4 | 2.50x1.88 | 2.50x1.24 | acdg | Zen | 1¼ | ..... | 22½ | 25½ | 44⅛ | 4 | 56 |
| 45 | E | CMT | HG | Alt | 22.2 | .859x2.75 | 4 | MS | 7.937 | 30.1 | DFS | Y | 2.06x1.00 | 4 | 2.50x1.88 | 2.50x1.24 | acdg | Zen | 1½ | ..... | 22½ | 25½ | 44⅛ | 4 | 57 |
| 45 | E | CMT | HG | Alt | 25.0 | .859x2.88 | 4 | MS | 7.875 | 32.4 | DFS | Y | 2.12x1.22 | 4 | 2.50x1.88 | 2.50x1.24 | acdg | Zen | 1½ | ..... | 28 | 26⅛ | 46⅛ | 4 | 58 |
| 45 | E | CMT | HG | Alt | 25.0 | .859x2.88 | 4 | MS | 7.875 | 32.4 | DFS | Y | 2.12x1.22 | 4 | 2.50x1.88 | 2.50x1.24 | acdg | Zen(2) | 1½ | ..... | 28 | 26⅛ | 46⅛ | 4 | 59 |
| 45 | E | CMT | HG | Alt | 22.9 | .859x2.75 | 4 | MS | 9.00 | 32.0 | DFS | Y | 2.19x1.13 | 5 | 2.70x2.09 | 2.70x1.66 | acdg | Zen | 1¾ | ..... | 25¾ | 26⅞ | 54⅛ | 4 | 60 |
| 45 | E | CMT | HG | Alt | 22.9 | .859x2.75 | 4 | MS | 9.00 | 32.0 | DFS | Y | 2.19x1.13 | 5 | 2.70x2.09 | 2.70x1.66 | acdg | Zen(2) | 1¾ | ..... | 25¾ | 26⅞ | 54⅛ | 4 | 61 |
| 45 | Be | Sil* | HG | Alt | 39.0 | 1.13x2.75 | 4 | MS | 8.75 | 52.8 | DFS | Y | 2.31x1.34 | 7 | 3.00x2.93 | 3.00x1.72 | acdg | Zen(2) | 1½ | ..... | 27 | 30½ | 56⅛ | 4 | 62 |
| 45 | E | Spec | Ch | CI | 33.0 | .859x2.75 | 4 | MS | 7.937 | 32.6 | DFS | Y | 2.06x1.00 | 4 | 2.53x1.88 | 2.50x1.24 | acdg | Car | 1½ | 532 | 19⅞ | 35 | 35½ | 4 | 63 |
| 45 | E | Spec | Ch | Alat | 22.2 | .859x2.75 | 4 | MS | 7.812 | 30.1 | DFS | Y | 2.06x1.00 | 4 | 2.50x1.77 | 2.50x1.59 | acdg | Car | 1½ | 540 | 19⅞ | 35½ | 39⅛ | 4 | 64 |
| 45 | E | Spec | Ch | CI | 36.8 | .859x2.88 | 4 | MS | 8.00 | 36.3 | DFS | Y | 2.12x1.09 | 4 | 2.50x1.56 | 2.50x1.59 | acdg | Car | 1½ | 550 | 21½ | 33⅞ | 37⅛ | 3-4 | 65 |
| 45 | E | Spec | Ch | CI | 36.8 | .859x2.88 | 4 | MS | 7.88 | 34.6 | DFS | Y | 2.12x1.09 | 4 | 2.50x1.56 | 2.50x1.59 | acdg | Car | 1½ | 560 | 21½ | 33⅞ | 37⅛ | 3-4 | 66 |
| 45 | E | Spec | Ch | Alt | 22.9 | .859x2.75 | 4 | MS | 9.00 | 32.0 | DFS | Y | 2.19x1.13 | 5 | 2.70x1.66 | 2.50x2.09 | acdg | Car | 1½ | 735 | 22½ | 37⅛ | 45½ | 1-3-4 | 67 |
| 45 | Be | Sil | HG | Ala | 39.0 | 1.13x3.25 | 4 | MS | 8.940 | 52.8 | DFS‡ | Y | 2.31x1.34 | 7 | 3.00x1.72 | 3.00x2.93 | acdg | Car | 1½ | 1090 | 24½ | 40⅛ | 47⅛ | 3 | 68 |
| 45 | Be | Sil | HG | Ala | 39.0 | 1.13x3.25 | 4 | MS | 8.750 | 52.8 | DFS‡ | Y | 2.31x1.34 | 7 | 3.00x1.72 | 3.00x2.93 | acdg | Car | 1½ | 1060 | 24½ | 40⅛ | 47⅛ | 3 | 69 |
| 45 | Be | Sil | HG | Ala | 45.3 | 1.13x3.25 | 4 | MS | 8.750 | 52.8 | DFS‡ | Y | 2.31x1.34 | 7 | 3.00x1.72 | 3.00x2.93 | acdg | Car | 1½ | 1100 | 24½ | 41⅞ | 47⅛ | 3 | 70 |
| 45 | E | CI | HG | Al | 153 | 1.49x5.37 | 4 | 3135 | 16 | 244 | 4140 | N | 3.00x3.80 | 3 | 3.25x3.81 | 3.25x4.50 | acdfg | Zen | 2 | 2300 | 31⅞ | 49½ | 67⅞ | 1, 0 | 71 |
| 45 | E | CI | HG | Al | 153 | 1.49x5.37 | 4 | 3135 | 16 | 244 | 4140 | Y | 3.00x3.50 | 4 | 3.25x3.81 | 3.25x4.60 | acdfg | Zen(2) | 1¾ | 3200 | 29½ | 61¾ | 73½ | 1, 0 | 72 |
| 45 | E | CI | HG | Al | 153 | 1.49x5.37 | 4 | 3135 | 16 | 244 | 4140 | N | 3.37x3.18 | 5 | 4.00x3.62 | 4.00x4.50 | acdfg | Zen(2) | 2 | 4500 | 33⅛ | 56⅛ | 97⅛ | 0 | 73 |
| 45 | E | NCI | HG | Al | 165 | 2.00x5.75 | 5 | 3135 | 16 | 276 | 4140 | N | 4.00x5.00 | 7 | 4.50x3.75 | 4.50x5.50 | abcdfg | Zen(4) | 2 | 11000 | 51 | 55 | 95 | 00 | 74 |
| 45 | E | NCI | HG | Al | 176 | 2.00x5.75 | 5 | 3135 | 16 | 276 | 4140 | N | 4.00x5.00 | 7 | 4.50x3.75 | 4.50x5.50 | abcdfg | Zen(4) | 2 | 11200 | 51 | 55 | 95 | 00 | 75 |
| 45 | E | NCI | HG | Al | 165 | 2.00x5.75 | 5 | 3135 | 16 | 276 | 4140 | N | 4.00x5.00 | 5 | 4.50x3.75 | 4.50x5.50 | abcdfg | Zen(2) | 2 | 8200 | 51 | 58 | 72¼ | 00 | 76 |
| 45 | E | NCI | HG | Al | 176 | 2.00x5.75 | 5 | 3135 | 16 | 276 | 4140 | N | 4.00x5.00 | 5 | 4.50x3.75 | 4.50x5.50 | abcdfg | Zen(2) | 2 | 8200 | 51 | 58 | 72¼ | 00 | 77 |
| 45 | E | Spec | HG | Al | 256 | 2.38x6.25 | 5 | 1040 | 16 | ..... | 4140 | ... | 4.75x5.25 | 7 | 5.25x3.75 | 5 25x5.00 | abcdfg | Zen | 2 | ..... | 51 | 58½ | 96⅛ | 00 | 78 |

For abbreviations, see pages 164 and 165

*For Directory of the Manufacturers listed above, see page 190.*

# AUTOMOTIVE GASOLINE

| Line Number | ENGINE MAKE AND MODEL | Designed for | Number of Cylinders, Bore and Stroke (In.) | MAXIMUM BRAKE Hp. at Specified R.P.M. | | Piston Displacement (Cu. In.) | Compression Ratio | Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories | Cylinder Liners—Type | Crankcase—Upper Half Integral with Cylinders | VALVES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | With Bare Engine | With Standard Accessories | | | | | | Arrangement | Exhaust Head Material (S.A.E. No.) | Max. Head Diameter (In.) | | Min. Port Diameter (In.) | | Lift (In.) | | Stem Diameter (In.) | |
| | | | | | | | | | | | | | Intake | Exhaust | Intake | Exhaust | Intake | Exhaust | Intake | Exhaust |
| 1 | Continental N-62 | Ind | 4-2 5/8x3 1/2 | 16-2200 | | 62.0 | 5.40 | 43-1600 (BE) | N | In | L | XCR | 0.95 | .895 | .750 | .750 | .187 | .187 | .312 | .312 |
| 2 | Y-69 | Ind | 4-2 1/2x3 1/2 | 20-2600 | | 68.7 | 4.90 | 47-1400 (BE) | N | In | L | Aus | 1.20 | 1.01 | 1.06 | .875 | .296 | .281 | .314 | .313 |
| 3 | Y-4069 | Tr | 4-2 1/2x3 1/2 | 27-3000 | | 68.7 | 6.10 | 51-2000 (BE) | N | In | L | Aus | 1.20 | 1.01 | 1.06 | .875 | .296 | .281 | .314 | .313 |
| 4 | Y-91 | Ind | 4-2 1/2x3 1/2 | 28-2800 | | 90.9 | 4.90 | 67-1400 (BE) | N | In | L | Aus | 1.20 | 1.01 | 1.06 | .875 | .296 | .281 | .314 | .313 |
| 5 | Y-4091 | C,Tr | 4-2 1/2x3 1/2 | 35-3000 | | 90.9 | 6.10 | 70-1600 (BE) | N | In | L | Aus | 1.20 | 1.01 | 1.06 | .875 | .296 | .281 | .314 | .313 |
| 6 | Y-112 | Ind | 4-3 1/8x3 1/2 | 31-2600 | | 111.7 | 5.90 | 81-1400 (BE) | N | In | L | Aus | 1.20 | 1.01 | 1.06 | .875 | .296 | .281 | .314 | .313 |
| 7 | Y-4112 | C,Tr | 4-3 1/8x3 1/2 | 45-3000 | | 111.7 | 6.10 | 86-2200 (BE) | | In | L | Aus | 1.20 | 1.01 | 1.06 | .875 | .296 | .281 | .314 | .313 |
| 8 | F-124 | Ind | 4-3x4 1/8 | 38-2400 | | 123.7 | 4.10 | 91-1200 (BE) | N | | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .281 | .281 | .341 | .334 |
| 9 | F-4124 | C,T,Tr | 4-3x4 1/8 | 48-3000 | | 123.7 | 6.50 | 96-1400 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .281 | .281 | .341 | .336 |
| 10 | F-140 | Ind | 4-3 1/8x4 1/8 | 42-2400 | | 139.6 | 4.20 | 104-1200 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .296 | .281 | .341 | .333 |
| 11 | F-4140 | C,T,Tr | 4-3 1/8x4 1/8 | 52-3000 | | 139.6 | 6.30 | 108-1400 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .281 | .281 | .341 | .339 |
| 12 | G-157 | Ind | 4-3 5/8x4 5/8 | 39-2400 | | 157.0 | 4.80 | 121-1000 (BE) | W | | I | XCR | 1.32 | 1.20 | 1.18 | 1.09 | .312 | .312 | .343 | .349 |
| 13 | F-162 | Ind | 4-3 1/8x4 1/8 | 43-2400 | | 162.4 | 5.00 | 124-800 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .281 | .281 | .341 | .333 |
| 14 | F-4162 | C,T,Tr | 4-3 1/8x4 1/8 | 58-3000 | | 162.4 | 6.10 | 122-1600 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .281 | .281 | .341 | .339 |
| 15 | H-227 | Ind | 4-3 5/8x5 1/2 | 54-2000 | | 227.0 | 4.70 | 174-1000 (BE) | W | In | I | XCR | 1.64 | 1.45 | 1.50 | 1.31 | .343 | .343 | .437 | .436 |
| 16 | H-243 | Ind | 4-3 5/8x5 1/2 | 58-2000 | | 243.0 | 4.70 | 186-1000 (BE) | W | In | I | XCR | 1.64 | 1.49 | 1.50 | 1.31 | .343 | .343 | .437 | .437 |
| 17 | F-188 | Ind | 4-3 1/8x6 | 64-2400 | | 185.6 | 4.20 | 140-1200 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .296 | .296 | .341 | .337 |
| 18 | F-6188 | C,T,Tr | 4-3 1/8x6 | 77-3400 | | 185.6 | 6.70 | 142-1600 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .296 | .281 | .341 | .339 |
| 19 | F-209 | Ind | 4-3 1/2x4 5/8 | 61-2400 | | 209.4 | 4.70 | 156-1000 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .296 | .296 | .341 | .339 |
| 20 | F-6209 | C,T,Tr | 4-3 1/2x4 5/8 | 90-3400 | | 209.4 | 6.70 | 161-1600 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .296 | .281 | .341 | .339 |
| 21 | F-226 | Ind | 4-3 1/2x4 5/8 | 65-2400 | | 226.0 | 4.90 | 169-1000 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .296 | .296 | .341 | .339 |
| 22 | F-6226 | C,T,Tr | 4-3 1/2x4 5/8 | 100-3400 | | 226.0 | 6.70 | 180-1600 (BE) | N | In | L | Aus | 1.51 | 1.32 | 1.37 | 1.18 | .296 | .281 | .341 | .339 |
| 23 | M-271 | Ind | 6-3 5/8x4 5/8 | 76-2200 | | 270.9 | 4.20 | 198-1200 (BE) | N | In | L | Aus | 1.76 | 1.51 | 1.62 | 1.37 | .343 | .359 | .404 | .409 |
| 24 | M-6271 | T,B,Tr | 6-3 5/8x4 5/8 | 94-3000 | | 270.9 | 6.70 | 206-1600 (BE) | N | In | L | Aus | 1.76 | 1.51 | 1.62 | 1.37 | .343 | .359 | .404 | .402 |
| 25 | M-280 | Ind | 6-3 5/8x4 5/8 | 81-2200 | | 289.9 | 4.40 | 212-1200 (BE) | N | In | L | Aus | 1.76 | 1.51 | 1.62 | 1.37 | .343 | .359 | .404 | .402 |
| 26 | M-6290 | T,B,Tr | 6-3 5/8x4 5/8 | 104-3000 | | 289.9 | 6.70 | 220-1200 (BE) | N | In | L | Aus | 1.76 | 1.51 | 1.62 | 1.37 | .343 | .359 | .404 | .402 |
| 27 | M-330 | Ind | 6-4x4 1/4 | 89-2200 | | 329.9 | 4.80 | 248-1000 (BE) | N | In | L | Aus | 1.76 | 1.51 | 1.62 | 1.37 | .343 | .343 | .404 | .402 |
| 28 | M-6330 | T,B,Tr | 6-4x4 1/4 | 120-3000 | | 329.4 | 6.70 | 253-1200 (BE) | N | In | L | Aus | 1.76 | 1.51 | 1.62 | 1.37 | .343 | .359 | .404 | .402 |
| 29 | B-371 | Ind | 6-4 1/8x4 1/2 | 97-2200 | | 370.9 | 5.20 | 277-1000 (BE) | N | In | L | Aus | 1.99 | 1.64 | 1.75 | 1.50 | .359 | .359 | .435 | .432 |
| 30 | B-6371 | T,B | 6-4 1/8x4 1/2 | 128-2800 | | 370.9 | 6.40 | 283-1300 (BE) | N | In | L | Aus | 1.99 | 1.64 | 1.75 | 1.50 | .359 | .359 | .435 | .432 |
| 31 | T-6371 | | 6-4 1/8x4 1/2 | 144-3000 | | 370.9 | 6.40 | 297-1400 (BE) | N | | I | Sil | 2.08 | 1.64 | 1.87 | 1.50 | .460 | .406 | .437 | .432 |
| 32 | B-427 | Ind | 6-4 1/4x4 1/2 | 112-2200 | | 427.1 | 5.00 | 322-800 (BE) | N | In | L | Aus | 1.99 | 1.64 | 1.75 | 1.50 | .359 | .359 | .435 | .437 |
| 33 | B-6427 | T,B,M | 6-4 1/4x4 1/2 | 180-2800 | | 427.2 | 6.40 | 325-1300 (BE) | N | In | L | Aus | 1.89 | 1.64 | 1.75 | 1.50 | .359 | .359 | .435 | .432 |
| 34 | T-6427 | | 6-4 1/4x4 1/2 | 186-3000 | | 427.2 | 6.40 | 342-1400 (BE) | N | | I | Sil | 2.08 | 1.64 | 1.87 | 1.50 | .460 | .406 | .437 | .432 |
| 35 | U-5501 | T,B,Ind | 6-4 1/2x5 1/4 | 177-2600 | | 501.0 | 6.20 | 400-1400 (BE) | N | In | L | Sil | 2.14 | 1.67 | 2.00 | 1.63 | .374 | .374 | .438 | .432 |
| 36 | R-513 | Ind | 6-4 1/2x5 5/8 | 140-2000 | | 512.9 | 5.10 | 383-1000 (BE) | N | In | I | Aus | 2.14 | 1.89 | 2.00 | 1.75 | .500 | .500 | .500 | .493 |
| 37 | R-6513 | T,B | 6-4 1/2x5 5/8 | 180-2800 | | 512.9 | 6.00 | 410-1300 (BE) | N | In | I | Aus | 2.14 | 1.89 | 1.81 | 1.75 | .500 | .500 | .500 | .495 |
| 38 | R-572 | Ind | 6-4 5/8x5 5/8 | 156-2000 | | 571.7 | 5.50 | 440-1000 (BE) | N | In | I | Aus | 2.14 | 1.89 | 2.00 | 1.75 | .500 | .500 | .500 | .495 |
| 39 | R-6572 | T,B | 6-4 5/8x5 5/8 | 200-2800 | | 571.7 | 6.00 | 480-1300 (BE) | N | In | I | Aus | 2.14 | 1.89 | 2.00 | 1.75 | .500 | .500 | .500 | .495 |
| 40 | R-602 | Ind | 6-4 7/8x5 5/8 | 164-2000 | | 602.0 | 5.80 | 460-1000 (BE) | N | In | I | Aus | 2.14 | 1.89 | 2.00 | 1.75 | .500 | .500 | .500 | .495 |
| 41 | R-6802 | T,B | 6-4 7/8x5 5/8 | 212-2800 | | 602.0 | 6.00 | 480-1300 (BE) | N | In | I | Aus | 2.14 | 1.89 | 2.00 | 1.75 | .500 | .500 | .500 | .495 |
| 42 | S-749 | Ind | 6-5 5/8x5 1/2 | 217-3200 | | 748.8 | 6.10 | 572-1000 (BE) | N | | I | Aus | 2.39 | 2.14 | 2.25 | 2.00 | .562 | .562 | .497 | .495 |
| 43 | S-6749 | | 6-5 5/8x5 1/2 | 247-3600 | | 748.8 | 6.10 | 576-1400 (BE) | N | | I | Aus | 2.39 | 2.14 | 2.25 | 2.00 | .562 | .562 | .497 | .494 |
| 44 | K-6271 | Tr | 6-3 5/8x4 5/8 | 115-2200 | | 270.9 | 6.50 | 216-1200 (BE) | N | In | I | Sil | 1.99 | 1.64 | 1.76 | 1.56 | .443 | .406 | .435 | .432 |
| 45 | K-6290 | Tr | 6-3 5/8x4 5/8 | 123-3200 | | 289.9 | 6.40 | 232-1200 (BE) | N | In | I | Sil | 1.99 | 1.64 | 1.76 | 1.56 | .443 | .406 | .435 | .432 |
| 46 | K-6330 | Tr | 6-4x4 1/4 | 140-3200 | | 329.9 | 6.40 | 264-1200 (BE) | N | In | I | Sil | 1.99 | 1.64 | 1.76 | 1.56 | .443 | .406 | .435 | .432 |
| 47 | S-6820 | Tr | 6-5 1/2x5 1/2 | 270-2600 | | 820.0 | | 628-1400 (BE) | N | In | I | Aus | 2.39 | 2.14 | 2.25 | 2.00 | .562 | .562 | .497 | .495 |
| 48 | Dodge T-172, T-174 | T | 6-3 1/2x4 5/8 | 96-3600 | 92-3600 | 217.8 | 6.90 | 172-1200 (BE) | N | In | L | Sil | 1.53 | 1.41 | 1.41 | 1.28 | .379 | .379 | .340 | .340 |
| 49 | T-176 | T | 6-3 1/2x4 5/8 | 102-3600 | 83-3200 | 230.2 | 6.70 | 187-1200 (BE) | N | In | L | Sil | 1.53 | 1.41 | 1.41 | 1.28 | .364 | .364 | .340 | .340 |
| 50 | T-184, T-185 | T | 6-3 1/2x4 5/8 | 94-3200 | 83-3200 | 230.2 | 6.70 | 188-1200 (BE) | N | In | L | Sil | 1.53 | 1.41 | 1.41 | 1.28 | .364 | .364 | .340 | .340 |
| 51 | T-187 | T | 6-3 1/2x4 5/8 | 104-3200 | 79-3200 | 230.2 | 6.70 | 188-1200 (BE) | N | In | L | Sil | 1.53 | 1.41 | 1.41 | 1.28 | .354 | .364 | .340 | .340 |
| 52 | T-178, 192, 194; TX-178, 192 | T | 6-3 1/2x4 1/4 | 109-3600 | 91-3200 | 206.8 | 6.90 | 172-1200 (BE) | N | In | L | Sil | 1.72 | 1.50 | 1.56 | 1.37 | .379 | .379 | .340 | .340 |
| 53 | T-180, 184; TX-180, 194 | T | 6-3 1/2x4 1/2 | 114-3600 | 98-3200 | 250.8 | 6.80 | 204-1200 (BE) | N | In | L | Sil(x) | 1.72 | 1.50 | 1.56 | 1.37 | .379 | .379 | .340 | .430 |
| 54 | T-186 | T | 6-3 3/4x4 1/2 | 122-3200 | 106-3200 | 306.0 | 6.46 | 245-1200 (BE) | N | In | L | Sil(x) | 1.94 | 1.75 | 1.78 | 1.59 | .410 | .379 | .371 | .436 |
| 55 | T-188, TX-188 | T | 6-3 5/8x5 | 128-3000 | 111-2800 | 331.3 | 6.46 | 270-1200 (BE) | N | In | L | Sil(x) | 1.94 | 1.75 | 1.78 | 1.59 | .410 | .379 | .371 | .436 |
| 56 | T-190 | T | 6-4x5 | 184-3000 | 140-2800 | 377.0 | 6.90 | 330-1200 (BE) | N | In | L | Sil(x) | 1.94 | 1.75 | 1.78 | 1.59 | .400 | .375 | .371 | .434 |
| 57 | Ford 8N9 | B | 8-3 1/16x4.4 | 104-3000 | 86-3000 | 254.0 | 6.80 | 212-1200 (BE) | N | In | L | Nic | 1.65 | 1.51 | 1.48 | 1.34 | .350 | .350 | .341 | .341 |
| 58 | 7HT | T | 8-3.3x4.4 | 95-3300 | 87-3100 | 226.0 | 6.80 | 186-1200 (BE) | N | In | L | Nic | 1.65 | 1.51 | 1.48 | 1.34 | .350 | .350 | .341 | .341 |
| 59 | 8RT | T | 8-3 1/4x3 3/4 | 100-3800 | 90-3500 | 239.0 | 6.80 | 180-2000 (BE) | N | In | L | Nic | 1.51 | 1.31 | 1.34 | 1.16 | .307 | .307 | .341 | .341 |
| 60 | 8EQ | T | 8-3 1/2x4 5/8 | 145-3600 | 127-3300 | 337.0 | 6.40 | 295-1800 (BE) | N | In | L | Nic | 1.80 | 1.51 | 1.57 | 1.35 | .360 | .360 | .341 | .341 |
| 61 | 8NNN-128 | M,I | 8-3 1/8x3 5/8 | 38-2400 | 36-2400 | 119.7 | 6.50 | 93-1500 (BE) | D | In | L | CNS | 1.51 | 1.29 | 1.48 | 1.24 | .307 | .307 | .310 | .310 |
| 62 | 7HNN-226 | M,I | 8-3.3x4.4 | 90-2400 | 77-2400 | 226.0 | 6.80 | 183-1500 (BE) | N | In | L | CNS | 1.65 | 1.51 | 1.48 | 1.34 | .338 | .335 | .341 | .341 |
| 63 | 8MNN-254 | M,I | 8-3.3x4.4 | 95-2400 | 92-2400 | 254.0 | 6.80 | 216-1800 (BE) | N | In | L | CNS | 1.65 | 1.51 | 1.48 | 1.34 | .338 | .335 | .341 | .341 |
| 64 | 8RNN-239 | M,I | 8-3 1/4x3 3/4 | 94-2800 | 91-2800 | 239.0 | 6.80 | 189-1900 (BE) | N | In | L | CNS | 1.81 | 1.51 | 1.34 | 1.34 | .292 | .292 | .341 | .341 |
| 65 | 8ENN-337 | M,I | 8-3 1/2x4 5/8 | 117-2400 | 112-2400 | 337.0 | 6.60 | 299-1000 (BE) | N | In | L | HFA | 1.80 | 1.51 | 1.57 | 1.35 | .357 | .340 | .341 | .341 |
| 66 | 8MTH | T | 8-3 1/2x4.4 | 110-3400 | 100-3180 | 254.0 | 6.80 | 212-1200 (BE) | N | In | L | Nic | 1.65 | 1.51 | 1.48 | 1.34 | .350 | .350 | .341 | .341 |
| 67 | G. M. C. 228 | T | 6-3 1/8x3 1/4 | 100-3400 | 90-3200 | 228.0 | 6.75 | 182-1200 (BE) | N | In | I | Sil | 1.64 | 1.47 | 1.31 | 1.15 | .395 | .380 | .341 | .340 |
| 68 | 248 | T | 6-3 1/8x3 1/4 | 114-3600 | 104-3400 | 248.5 | 6.75 | 202-1200 (BE) | N | In | I | Sil | 1.64 | 1.47 | 1.31 | 1.15 | .395 | .380 | .341 | .340 |
| 69 | 270 | T | 6-3 1/4 | 130-3600 | 115-3200 | 269.5 | 7.20 | 226-2000 (BE) | N | In | I | 2112 | 1.86 | 1.56 | 1.56 | 1.25 | .395 | .380 | .341 | .340 |
| 70 | 302 | T | 6-4x3 | 145-3600 | 130-3200 | 301.6 | 7.20 | 262-1200 (BE) | N | In | I | 2112 | 1.86 | 1.56 | 1.56 | 1.25 | .395 | .380 | .341 | .340 |
| 71 | 360 | T | 6-4 1/2x4 1/2 | 155-3200 | 140-3000 | 360.8 | 6.50 | 297-1000 (BE) | N | Se | I | Sil | 2.00 | 1.59 | 1.63 | 1.38 | .403 | .384 | .372 | .434 |
| 72 | 426 | T | 6-4 1/2x5 | 177-3200 | 154-2800 | 425.6 | 6.50 | 342-1200 (BE) | N | Se | I | Sil | 2.00 | 1.59 | 1.75 | 1.50 | .462 | .461 | .372 | .434 |
| 73 | 503 | T,B | 6-4 5/8x5 1/2 | 200-3000 | 181-2800 | 502.7 | 6.50 | 422-1200 (BE) | N | Se | I | Sil | 2.09 | 1.69 | 1.75 | 1.50 | .462 | .461 | .372 | .434 |
| 74 | Gray Marine Light Four-89 | M | 4-2 1/2x3 1/2 | | 16-1800 | 89 | 6.07 | 476-1400 (EA) | H | In | L | Sil | 1.29 | 1.02 | 1.06 | .875 | .284 | .284 | .314 | .313 |
| 75 | Sea Scout-91 | M | 4-2 1/2x3 1/2 | | 25-2200 | 91 | 7.45 | | N | In | L | Sil | 1.29 | 1.02 | 1.06 | .875 | .284 | .284 | .314 | .313 |
| 76 | Lugger 4-112 | M | 4-3 1/8x3 1/2 | | 30-2000 | 112.0 | 6.00 | | N | In | L | Sil | 1.20 | 1.02 | 1.06 | .900 | .284 | .284 | .313 | .313 |
| 77 | Lugger 4-182 | M | 4-3 1/2x4 5/8 | | 42-1800 | 182 | 7.00 | | N | In | L | Sil | 1.51 | 1.33 | 1.37 | 1.18 | .331 | .331 | .340 | .381 |
| 78 | Lugger 6-226 | M | 6-3 1/2x4 5/8 | | 73-2400 | 226 | 6.75 | | N | In | L | Sil | 1.51 | 1.33 | 1.37 | 1.18 | .284 | .294 | .340 | .340 |
| 79 | Lugger 6-244 | M | 6-3 1/2x4 5/8 | | 83-2400 | 244 | 6.22 | | N | In | L | Sil | 1.70 | 1.42 | 1.56 | 1.31 | .311 | .311 | .339 | .338 |
| 80 | Lugger 6-330 | M | 6-4x4 5/8 | | 96-2400 | 330 | 6.00 | | N | In | L | Sil | 1.76 | 1.51 | 1.62 | 1.37 | .339 | .339 | .404 | .401 |
| 81 | Express 4-140 | M | 4-3 1/2x4 5/8 | | 85-3000 | 140.0 | 6.20 | | N | In | L | Sil | 1.51 | 1.33 | | | .330 | .330 | .341 | .339 |
| 82 | Express 4-182 | M | 4-3 1/2x4 5/8 | | 63-3000 | 182 | 7.00 | | N | In | L | Sil | 1.81 | 1.33 | 1.37 | 1.18 | .331 | .331 | .340 | .330 |
| 83 | Express 6-226 | M | 6-3 1/2x4 5/8 | | 93-3200 | 226 | 6.75 | | N | In | L | Sil | 1.81 | 1.33 | 1.37 | 1.18 | .311 | .311 | .340 | .342 |
| 84 | Express 6-244 | M | 6-3 1/2x4 5/8 | | 102-3200 | 244 | 7.00 | | N | In | L | Sil | 1.70 | 1.42 | 1.56 | 1.31 | .387 | .387 | .339 | .332 |
| 85 | Express 6-330 | M | 6-4x4 5/8 | | 124-3200 | 330 | 7.25 | | N | In | L | Sil | 1.76 | 1.51 | 1.62 | 1.37 | .354 | .354 | .404 | .401 |
| 86 | Express 6-427 | M | 6-4 1/4x4 7/8 | | 180-3200 | 427 | 6.73 | | N | In | L | Sil | 1.89 | 1.64 | 1.75 | 1.5 | .388 | .359 | .434 | .436 |
| 87 | Super 6-330 | M | 6-4x4 5/8 | | 156-3400 | 330 | 7.75 | | N | In | L | Sil(x) | 1.89 | 1.58 | 1.62 | 1.37 | .354 | .354 | .404 | .431 |
| 88 | Super 6-427 | M | 6-4 1/4x4 7/8 | | 178-3200 | 427 | 7.50 | | N | In | L | Sil(x) | 2.16 | 1.77 | 2.02 | 1.63 | .368 | .359 | .434 | .431 |
| 89 | Phantom 4-45 | M | 4-2 1/2x3 1/2 | | 45-3600 | 91 | 7.45 | | N | In | L | Sil | 1.20 | 1.02 | 1.06 | .875 | .284 | .284 | .314 | .314 |
| 90 | Phantom 4-62 | M | 4-3 1/8x4 5/8 | | 62-3600 | 140.0 | 7.05 | | N | In | L | Sil | 1.51 | 1.33 | | | .330 | .330 | .341 | .339 |

For abbreviations, see pages 164 and 165

*For Directory of the Manufacturers listed above, see page 190.*

# ENGINES—*Continued*

| | VALVES | | | | PISTONS | | | | CONNECTING RODS | | | CRANKSHAFT | | | | | | | | CARBU-RETOR | | | OVERALL DIMENSIONS (In.) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Seats | | | | | | | | | | | | | | MAIN BEARINGS | | | | | | | | | | | | |
| | | | | | | | | | | | | | | Crank-Pin | Diameter and Length (In.) | | | | | | | | | | | | |
| | Angle (Deg.) | Inserts Used? | Insert Material (S.A.E. No.) | Camshaft Drive—Type | Material | Weight with Pins, Rings, Bushings (Oz.) | Piston Pin—Diameter and Length (In.) | Number of Rings per Piston | Material | Center to Center Length (In.) | Weight with Bushing and Cap (Oz.) | Material | Counter Balance Used | Diameter and Length (In.) | Number | Front | Rear | Oil Pressure lb— | Make | Size | Engine Weight without Carburetor or Ignition (Lb.) | Width | Height | Length | Clutch Housing (S.A.E. No.) | Line Number |
| (h) | N | | | | Al | | .546x1.90 | 3 | 1035 | 5¼ | | DFS | N | | | 2.00x | 2.00x1.25 | | | | | | | | | | |
| (h) | N | | | HG | Cl | | .703x2.06 | 3 | 1030 | 5¼ | | DFS | N | 1.50x1.18 | 3 | 1.75x1.37 | 1.75x1.78 | acdgt | | 1 | 265 | 26 | 22½ | 25½ | 5 | 2 |
| (h) | N | | | HG | Cl | | .703x2.06 | 3 | 1030 | 5¼ | | DFS | N | 1.50x1.18 | 3 | 1.75x1.37 | 1.75x1.78 | acdgt | | 1 | 260 | 26 | 22½ | 25½ | 5 | 3 |
| (h) | N | | | HG | Cl | | .703x2.44 | 3 | 1030 | 5¼ | | DFS | N | 1.50x1.18 | 3 | 1.75x1.37 | 1.75x1.78 | acdgt | | 1 | 265 | 26 | 22½ | 25½ | 5 | 4 |
| (h) | N | | | HG | Cl | | .703x2.44 | 3 | 1030 | 5¼ | | DFS | N | 1.50x1.18 | 3 | 1.75x1.37 | 1.75x1.78 | acdgt | | 1 | 290 | 26 | 22½ | 25½ | 5 | 5 |
| (h) | N | | | HG | Al | | .703x2.75 | 3 | 1030 | 5¼ | | DFS | N | 1.50x1.18 | 3 | 1.75x1.28 | 1.75x1.65 | acdgt | | 1 | 265 | 26 | 22½ | 25½ | 5 | 6 |
| (h) | N | | | HG | Cl | | .703x2.75 | 3 | 1030 | 5¼ | | DFS | N | 1.50x1.18 | 3 | 1.75x1.28 | 1.75x1.65 | acdgt | | 1 | 290 | 26 | 26½ | 25½ | 5 | 7 |
| (h) | N | | | HG | Cl | | .859x2.50 | 4 | 1030 | 7 | | DFS | N | 1.93x1.31 | 3 | 2.25x1.18 | 2.25x1.89 | acdgt | | 1 | 370 | 26 | 26½ | 29½ | 4 | 8 |
| (h) | N | | | HG | Cl | | .859x2.50 | 4 | 1030 | 7 | | DFS | N | 1.93x1.31 | 3 | 2.25x1.18 | 2.25x1.89 | acdgt | | 1¼ | 395 | 26 | 26½ | 29½ | 4, 3 | 9 |
| (h) | N | | | HG | Cl | | .859x2.68 | 4 | 1030 | 7 | | DFS | N | 1.93x1.31 | 3 | 2.25x1.18 | 2.25x1.89 | acdgt | | 1 | 370 | 26 | 26½ | 29½ | 4 | 10 |
| (h) | N | | | HG | Cl | | .859x2.68 | 4 | 1030 | 7 | | DFS | N | 1.93x1.31 | 3 | 2.25x1.18 | 2.25x1.89 | acdgt | | 1¼ | 395 | 26 | 26½ | 29½ | 4 | 11 |
| (h) | N | | | HG | Al | | 1.12x2.75 | 4 | 1035 | 7 | | DFS | N | | 3 | 2.37x1.53 | 2.37x1.66 | | | 1 | 475 | 16½ | 19½ | 26½ | 4, 3 | 12 |
| (h) | N | | | HG | Al | | .859x2.87 | 4 | 1030 | 7 | | DFS | N | 1.93x1.31 | 3 | 2.25x1.18 | 2.25x1.89 | acdgt | | 1 | 370 | 26 | 26½ | 29½ | 8 | 13 |
| (h) | N | | | HG | Al | | .859x2.87 | 4 | 1030 | 7 | | DFS | N | 1.93x1.31 | 3 | 2.25x1.18 | 2.25x1.89 | acdgt | | 1¼ | 395 | 26 | 26½ | 29½ | 4, 3 | 14 |
| (h) | E | SA | | | Al | | 1.25x3.31 | 4 | 1035 | 9½ | | DFS | N | 2.50x1.18 | 3 | 2.87x1.81 | 2.87x2.06 | acdg | | 1¼ | 645 | 19¾ | 33½ | 39½ | | 15 |
| (h) | E | SA | | | Al | | 1.25x3.18 | 4 | 1035 | 9½ | | DFS | N | 2.50x1.18 | 3 | 2.87x1.81 | 2.87x2.06 | acdg | | 1¼ | 654 | 19¾ | 33½ | 39½ | | 16 |
| (h) | N | | | HG | Cl | | .859x2.50 | 4 | 1030 | 7 | | DFS | N | 1.93x1.31 | 4 | 2.25x1.18 | 2.25x1.81 | acdgt | | 1¼ | 505 | 26 | 27½ | 36½ | 4 | 17 |
| (h) | N | | | HG | Cl | | .859x2.50 | 4 | 1030 | 7 | | DFS | Y | 1.93x1.31 | 4 | 2.25x1.18 | 2.25x1.81 | acdgt | | 1¼ | 515 | 26 | 27½ | 36½ | 4, 3 | 18 |
| (h) | N | | | HG | Cl | | .859x2.62 | 4 | 1030 | 7 | | DFS | N | 1.93x1.31 | 4 | 2.25x1.18 | 2.25x1.81 | acdgt | | 1¼ | 505 | 26 | 27½ | 36½ | 4 | 19 |
| (h) | N | | | HG | Cl | | .859x2.62 | 4 | 1030 | 7 | | DFS | Y | 1.93x1.31 | 4 | 2.25x1.18 | 2.25x1.81 | acdgt | | 1¼ | 515 | 26 | 27½ | 36½ | 4,3 | 20 |
| (h) | N | | | HG | Cl | | .859x2.62 | 4 | 1030 | 7 | | DFS | Y | 2.06x1.31 | 4 | 2.37x1.28 | 2.37x1.73 | acdgt | | 1¼ | 610 | 26 | 27½ | 36½ | 4 | 21 |
| (h) | N | | | HG | Cl | | .859x2.62 | 4 | 1030 | 7 | | DFS | Y | 2.06x1.31 | 4 | 2.37x1.28 | 2.37x1.81 | acdgt | | 1¼ | 615 | 26 | 27½ | 36½ | 4, 3 | 22 |
| (h) | E | SA | | HG | Al | | 1.10x3.06 | 5 | 1035 | 8½ | | DFS | Y | 2.25x1.56 | 7 | 2.62x1.50 | 2.62x2.18 | acdgt | | 1¼ | 720 | 25½ | 29½ | 42 | 3 | 23 |
| (h) | E | SA | | HG | Al | | 1.10x3.06 | 5 | 1035 | 8½ | | DFS | Y | 2.25x1.56 | 7 | 2.62x1.50 | 2.62x2.18 | acdgt | | 1¼ | 755 | 25½ | 29½ | 42 | 4, 3 | 24 |
| (h) | E | | | HG | Al | | 1.10x3.18 | 5 | 1035 | 8½ | | DFS | Y | 2.25x1.56 | 7 | 2.62x1.50 | 2.62x2.18 | acdgt | | 1¼ | 720 | 25½ | 29½ | 42 | 3 | 25 |
| (h) | E | SA | | HG | Al | | 1.10x3.18 | 5 | 1035 | 8½ | | DFS | Y | 2.25x1.56 | 7 | 2.62x1.50 | 2.62x2.18 | acdgt | | 1¼ | 755 | 25½ | 29½ | 42 | 4, 3 | 26 |
| (h) | E | | | HG | Al | | 1.10x3.43 | 5 | 1035 | 8½ | | DFS | Y | 2.25x1.56 | 7 | 2.62x1.50 | 2.62x2.18 | acdgt | | 1¼ | 720 | 25½ | 29½ | 42 | 3 | 27 |
| (h) | E | SA | | HG | Al | | 1.10x3.43 | 5 | 1035 | 8½ | | DFS | Y | 2.25x1.56 | 7 | 2.62x1.50 | 2.62x2.18 | acdgt | | 1¼ | 755 | 25½ | 29½ | 42 | 4, 3 | 28 |
| (h) | E | | | HG | Alu | | 1.25x3.43 | 5 | 1035 | 8½ | | DFS | Y | 2.50x1.69 | 7 | 2.87x1.65 | 2.87x2.62 | acdgt | | 1½ | 870 | 26 | 29¼ | 32½ | | 29 |
| (h) | E | SA | | HG | Alu | | 1.25x3.43 | 5 | 1035 | 8½ | | DFS | Y | 2.50x1.69 | 7 | 2.87x1.65 | 2.87x2.71 | acdgt | | 2 | 870 | 26 | 29¼ | 43½ | 3, 2 | 30 |
| (n) | E | SA | | HG | Alu | | 1.25x3.37 | 5 | 1035 | 8½ | | DFS | Y | | 7 | 2.87x1.65 | 2.87x2.71 | acdg | | 1¼ | 1070 | 24½ | 31½ | 45½ | | 31 |
| (h) | E | | | HG | Alu | | 1.25x3.43 | 5 | 1035 | 8½ | | DFS | Y | 2.50x1.69 | 7 | 2.87x1.65 | 2.87x2.62 | acdfgt | | 1½ | 875 | 26 | 29¼ | 43½ | 2 | 32 |
| (h) | E | SA | | HG | Alu | | 1.25x3.43 | 5 | 1035 | 8½ | | DFS | Y | 2.50x1.69 | 7 | 2.87x1.65 | 2.87x2.71 | acdfgt | | 2 | 875 | 26 | 29¼ | 43½ | 3, 2 | 33 |
| (h) | E | SA | | HG | Alt | | 1.25x3.62 | 5 | 1035 | 8½ | | DFS | Y | | 7 | 2.87x1.65 | 2.87x2.71 | acdg | | 1¼ | 1075 | 24½ | 31½ | 45½ | | 34 |
| (n) | E | SA | | HG | Al | | 1.50x3.72 | 5 | 1035 | 10½ | | DFS | | | 7 | 2.75x1.75 | 2.75x2.91 | acfg | | 1½ | | 26½ | 37½ | 47½ | 2 | 35 |
| (h) | E | | | HG | Alt | | 1.50x3.72 | 5 | 1035 | 10½ | | DFS | Y | 3.00x1.94 | 7 | 3.25x1.75 | 3.25x2.75 | acdfgt | | 2 | 1550 | | | | 2 | 36 |
| (h) | E | SA | | HG | Alt | | 1.50x3.72 | 5 | 1035 | 10½ | | DFS‡ | Y | 3.00x1.94 | 7 | 3.25x1.75 | 3.25x2.75 | acdfg | | 1½ | 1525 | | | | 2 | 37 |
| (h) | E | | | HG | Alt | | 1.50x3.72 | 5 | 1035 | 10½ | | DFS | Y | 3.00x1.94 | 7 | 3.25x1.75 | 3.25x2.75 | acdfgt | | 2 | 1550 | | | | 1 | 38 |
| (h) | E | SA | | HG | Alt | | 1.50x3.72 | 5 | 1035 | 10½ | | DFS‡ | Y | 3.00x1.94 | 7 | 3.25x1.75 | 3.25x2.75 | acdfg | | 1½ | 1525 | | | | 2 | 39 |
| (h) | E | SA | | HG | Alt | | 1.50x3.72 | 5 | 1035 | 10½ | | DFS | Y | 3.00x1.94 | 7 | 3.25x1.75 | 3.25x2.75 | acdfg | | 2 | 1550 | | | | 1 | 40 |
| (h) | E | SA | | HG | Alt | | 1.50x3.72 | 5 | 1035 | 10½ | | DFS‡ | Y | 3.00x1.94 | 7 | 3.25x1.75 | 3.25x2.75 | acdfgt | | 1½ | 1525 | | | | 2 | 41 |
| (h) | E | SA | | | Alt | | 1.75x4.53 | 5 | 8640 | 10½ | | DFS | Y | | 7 | 3.75x1.12 | 3.75x3.62 | acdg | | 2(2) | | 31½ | 47½ | 57½ | 0 | 42 |
| (h) | E | SA | | | Alt | | 1.75x4.53 | 5 | 8640 | 10½ | | DFS‡ | Y | | 7 | 3.75x1.87 | 3.75x3.12 | acdg | | 2(2) | 1885 | 31½ | 47½ | 57½ | 1 | 43 |
| (n) | E | St | | HG | Al | | 1.10x3.06 | 5 | 1035 | 8¾ | | DFS | Y | 2.25x1.56 | 7 | 2.62x1.50 | 2.62x2.18 | acdfg | | 1¼ | | | | | 3 | 44 |
| (n) | E | St | | HG | Al | | 1.10x3.18 | 5 | 1035 | 8¾ | | DFS | Y | 2.25x1.56 | 7 | 2.62x1.50 | 2.62x2.18 | acdfg | | 1¼ | | | | | 3 | 45 |
| (n) | E | St | | HG | Al | | 1.10x3.43 | 5 | 1035 | 8¾ | | DFS | Y | 2.25x1.56 | 7 | 2.62x1.50 | 2.62x2.18 | acdfg | | 1¼ | | | | | 3 | 46 |
| (h) | E | SA | | | Alt | | 1.75x4.53 | 5 | 8640 | 10½ | | DFS | Y | | 7 | 3.75x1.87 | 3.75x3.12 | acdg | | | | | | | | 47 |
| 45 | E | SA | | Ch | Al | | .98x2.75 | 4 | MS | 7½ | | CS | Y | 2.06x1.00 | 4 | 2.50x1.17 | 2.50x1.50 | acdg | Car | 1½ | 500 | 23½ | 35½ | 38½ | | 48 |
| 45 | E | SA | | Ch | Al | | .98x2.75 | 4 | MS | 7½ | | CS | Y | 2.06x1.00 | 4 | 2.50x1.17 | 2.50x1.59 | acdg | Str | 1½ | 525 | 23½ | 35½ | 35½ | | 49 |
| 45 | E | SA | | Ch | Al | | .98x2.75 | 4 | MS | 7½ | | CS | Y | 2.06x1.00 | 4 | 2.50x1.17 | 2.50x1.59 | acdg | Str | 1½ | 540 | 23½ | 35½ | 35½ | | 50 |
| 45 | E | SA | | Ch | Al | | .98x2.75 | 4 | MS | 7½ | | CS | Y | 2.06x1.00 | 4 | 2.50x1.17 | 2.50x1.59 | acdg | Car | 1½ | 570 | 24½ | 37½ | 37½ | | 51 |
| 45 | E | SA | | Ch | Al | | .98x2.87 | 4 | MS | 8 | | CS | Y | 2.12x1.09 | 4 | 2.50x1.18 | 2.50x1.59 | acdg | Car | 1½ | 575 | 23½ | 38½ | 39½ | | 52 |
| 45 | E | SA | | Ch | Al | | .98x2.87 | 4 | MS | 7½ | | CS | Y | 2.12x1.09 | 4 | 2.50x1.18 | 2.50x1.59 | acdg | Car | 1½ | 590 | 23½ | 38½ | 39½ | | 53 |
| 45 | Be | Sil | | HG | Al | | 1.12x3.25 | 4 | MS | 8½ | | CS | Y | 2.31x1.34 | 7 | 3.00x1.71 | 3.00x2.93 | acdg | Car | 1½ | 890 | 28½ | 38½ | 48½ | | 54 |
| 45 | Be | Sil | | HG | Al | | 1.12x3.25 | 4 | MS | 8¾ | | CS | Y | 2.31x1.34 | 7 | 3.00x1.71 | 3.00x2.93 | acdg | Car | 1½ | 890 | 28½ | 38½ | 48½ | | 55 |
| 45 | Be | Sil | | HG | Al | | 1.12x3.47 | 4 | MS | 8¾ | | CS | Y | 2.31x1.34 | 7 | 3.00x1.72 | 3.00x1.93 | acdg | Car | 1½ | 1050 | 29 | 38½ | 42½ | | 56 |
| 45 | E | E | MCS | HG | Alat | 28 | .850x2.91 | 3 | MS | 8.25 | 31 | CAS | Y | 2.30x1.4 | 4 | 2.87x1.14 | 2.87x1.58 | acd | Hol | 1½ | 539 | 28 | 31½ | 38½ | | 57 |
| 45 | E | E | MCS | HG | Alat | 21 | .850x2.91 | 4 | MS | 8.25 | 29 | CAS | Y | 2.30x1.4 | 4 | 2.87x1.14 | 2.87x1.56 | acd | Hol | 1½ | 500 | 24½ | 37½ | 36½ | | 58 |
| 45 | E | E | MCS | HG | Alat | 19 | .750x2.84 | 4 | MS | 7.0 | 19 | CAS | Y | 2.14x1.78 | 3 | 2.50x1.50 | 2.50x2.25 | acd | Hol | 1 | 534 | 23 | 36½ | 32½ | | 59 |
| 45 | E | E | MCS | HG | Alat | 26 | .850x3.12 | 3 | MS | 8.06 | 28 | DFS | Y | 2.40x2.25 | 3 | 2.87x1.34 | 2.87x2.40 | acd | Hol | 1¾ | 760 | 27½ | 40 | 34½ | | 60 |
| 45 | E | E | MCS | HG | Alat | 18 | .750x2.65 | 3 | CMS | 7 | 20.0 | CAS | Y | 2.08x1.12 | 3 | 2.25x1.60 | 2.25x1.60 | acdg | MaS | ⅞ | 340 | 20.0 | 28.2 | 29.7 | 6 | 61 |
| 45 | E | E | MCS | HG | Alat | 17 | .850x2.92 | 3 | CMS | 8¼ | 29 | CAS | Y | 2.30x1.29 | 4 | 2.87x1.14 | 2.87x1.37 | acdg | Hol | 1¼ | 585 | 21 | 30.2 | 37.8 | 3, 4 | 62 |
| 45 | E | E | MCS | HG | Alat | 20 | .850x2.92 | 3 | CMS | 8¼ | 29 | CAS | Y | 2.30x1.29 | 4 | 2.87x1.14 | 2.87x1.37 | acdg | Hol | 1¼ | 585 | 21 | 30.2 | 37.8 | 3, 4 | 63 |
| 45 | Be | MCS | HG | Alat | 13½ | .750x2.85 | 4 | CMS | 7 | 19 | CAS | Y | 2.14x1.78 | 3 | 2.50x1.50 | 2.50x1.97 | acdg | Hol | 1 | 570 | 22.9 | 30.8 | 32.8 | 3, 4 | 64 |
| 45 | E | MCS | HG | Alat | 20 | .850x3.12 | 4 | CMS | 8¼ | 27 | DFS | Y | 2.40x2.25 | 3 | 2.86x1.35 | 2.86x2.20 | acdg | Hol | 1½ | 880 | 27.7 | 39.1 | 40.7 | 3 | 65 |
| 45 | E | E | MCS | HG | Alat | 26 | .950x2.91 | 3 | MS | 8.25 | 31 | CAS | Y | 2.30x1.40 | 4 | 2.87x1.14 | 2.87x1.56 | acd | Hol | 1½ | 523 | 24½ | 37 | 39½ | | 66 |
| 30 | N | | | HG | Al | 32 | .990x3.08 | 4 | 1141 | 7 | 35 | 1046 | Y | 2.31x1.44 | 4 | 2.69x1.44 | 2.78x1.73 | abcdfg | Zen | 1½ | | 21½ | 39½ | 41 | | 67 |
| 30 | N | | | HG | Al | 39 | .990x3.25 | 4 | 1141 | 7 | 35 | 1046 | Y | 2.31x1.44 | 4 | 2.69x1.44 | 2.78x1.73 | abcdfg | Zen | 1½ | | 21½ | 35 | 41 | | 68 |
| (h) | N | | | HG | Al | 41 | .990x3.25 | 4 | 1141 | 7 | 35 | 1046 | Y | 2.31x1.44 | 4 | 2.69x1.44 | 2.78x1.73 | abcdfg | Hol | 1 | | 26½ | 35 | 41 | | 69 |
| (h) | N | | | HG | Al | 43 | .990x3.50 | 4 | 1141 | 7 | 35 | 1046 | Y | 2.31x1.44 | 4 | 2.69x1.44 | 2.78x1.73 | abcdfg | Hol | 1 | | 26½ | 35 | 41 | | 70 |
| (h) | E | Eat | | HG | Al | 50 | 1.12x3.63 | 4 | 1340 | 9¾ | 51 | 5046 | Y | 2.37x1.62 | 7 | 2.75x2.28 | 2.75x2.37 | abcdfg | Hol | 1¼ | | 31½ | 38½ | 47½ | 3 | 71 |
| (h) | E | Eat | | HG | Al | 62 | 1.25x3.71 | 4 | 1340 | 10¾ | 67 | 5046 | Y | 2.62x1.75 | 7 | 3.00x2.37 | 3.00x2.50 | abcdfg | Zen | 1½ | | 39½ | 41 | 49½ | 3 | 72 |
| (h) | E | Eat | | HG | Al | 67 | 1.25x3.96 | 5 | 1340 | 10¾ | 67 | 5046 | Y | 2.62x1.75 | 7 | 3.00x2.37 | 3.00x2.50 | abcdfg | Zen | 1½ | | 39½ | 41 | 49½ | 3 | 73 |
| (h) | N | | | HG | Cl | | .708x2.06 | 3 | 1030 | 5¼ | | 1045 | N | 1.43x1.98 | 3 | 1.75x3.75 | 1.75x1.32 | acd | Zen | 1 | 330 | 17½ | 19½ | 29¼ | | 74 |
| (h) | N | | | HG | Al | | .703x2.43 | 3 | 1030 | 5¼ | | 1045 | N | 1.5x1.18 | 3 | 1.75x1.78 | 1.75x1.37 | acdr | Zen | 1 | 390 | 17½ | 19½ | 29¼ | | 75 |
| (h) | N | | | HG | Al | | .708x2.75 | 3 | 1030 | 5¼ | | 1045 | | 1.50x1.00 | 3 | 1.75x1.43 | 1.75x1.21 | acdr | Zen | 1 | 410 | 17½ | 19½ | 29¼ | | 76 |
| (h) | N | | | HG | Al | | .859x2.69 | 4 | CS | 7 | | 1045 | N | 1.93x1.31 | 3 | 2.25x1.99 | 2.25x1.18 | acdr | Zen | 1½ | 665 | 19½ | 22½ | 35½ | | 77 |
| (k) | N | | | HG | Cl | | .859x2.81 | 4 | CS | 7 | | 1045 | Y | 2.06x1.31 | 4 | 2.25x1.73 | 2.25x1.28 | acdr | Zen | 1½ | 665 | 19½ | 22½ | 42½ | | 78 |
| 45 | N | | | HG | Al | | .859x2.87 | 4 | CS | 8¼ | | 1045 | Y | 2.12x1.37 | 4 | 2.37x2.06 | 2.37x1.43 | acdr | Zen | 1½ | 825 | 22½ | 23½ | 43½ | | 79 |
| (k) | N | | | HG | Al | | 1.10x3.43 | 5 | CS | 8¾ | | 1045 | Y | 2.25x1.56 | 7 | 2.62x2.15 | 2.62x1.56 | acdr | Str | 1½ | 1070 | 24½ | 25½ | 48½ | | 80 |
| (h) | N | | | HG | Al | | .859x2.87 | 4 | 1035 | 7 | | 1045 | | 2.12x1.37 | 3 | 2.37x2.06 | 2.37x1.43 | acdr | Zen | 1½ | 510 | 21½ | 22½ | 34½ | | 81 |
| (h) | N | | | HG | Al | | .859x2.68 | 4 | CS | 7 | | 1045 | N | 1.93x1.31 | 3 | 2.25x1.99 | 2.25x1.18 | acdr | Zen | 1½ | 665 | 19½ | 22½ | 35½ | | 82 |
| (k) | N | | | HG | Al | | .859x2.81 | 4 | CS | 7 | | 1045 | Y | 2.06x1.31 | 4 | 2.25x1.73 | 2.25x1.28 | acdr | Zen | 1½ | 665 | 19½ | 22½ | 42½ | | 83 |
| 45 | N | | | HG | Al | | .859x2.87 | 4 | CS | 8¼ | | 1045 | Y | 2.12x1.37 | 4 | 2.37x2.06 | 2.37x1.43 | acdr | Zen | 1½ | 825 | 21½ | 23½ | 43½ | | 84 |
| (k) | N | | | HG | Al | | 1.10x3.43 | 5 | CS | 8¾ | | 1045 | Y | 2.25x1.56 | 7 | 2.62x2.15 | 2.62x1.56 | acdr | Str | 2 | 1070 | 24½ | 25½ | 48½ | | 85 |
| (k) | | | | HG | Al | | 1.25x3.63 | 5 | CS | 8¾ | | 1045 | Y | 2.5x1.69 | 7 | 2.87x2.71 | 2.87x1.65 | acdr | Str | 2 | 1290 | 25½ | 29½ | 53½ | | 86 |
| (k) | N | | | HG | Al | | 1.10x3.43 | 5 | CS | 8¾ | | 1045 | Y | 2.25x1.56 | 7 | 2.62x2.15 | 2.62x1.56 | acdr | Str | 1¼ | 1025 | 24½ | 25½ | 48½ | | 87 |
| (k) | N | | | HG | Al | | 1.25x3.63 | 5 | CS | 8¾ | | 1045 | Y | 2.5x1.69 | 7 | 2.87x2.71 | 2.87x1.65 | acdr | Str | 2 | 1290 | 25½ | 29½ | 53½ | | 88 |
| (h) | N | | | HG | Al | | .703x2.43 | 3 | CS | 5¾ | | 1045 | N | 1.5x1.18 | 3 | 1.75x1.78 | 1.75x1.37 | acdr | Zen | 1½ | 385 | 17½ | 19½ | 29¼ | | 89 |
| (h) | N | | | HG | Al | | .859x2.87 | 4 | 1035 | 7 | | 1045 | | 2.12x1.37 | 3 | 2.37x2.06 | 2.37x1.43 | acdr | Zen | 1½ | 435 | 21½ | 22½ | 33 | | 90 |

For abbreviations, see pages 164 and 165

***For Directory of the Manufacturers listed above, see page 190.***

# AUTOMOTIVE GASOLINE

| Line Number | ENGINE MAKE AND MODEL | Designed for | Number of Cylinders, Bore and Stroke (In.) | MAXIMUM BRAKE Hp. at Specified R.P.M. | | Piston Displacement (Cu. In.) | Compression Ratio | Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories | Cylinder Liners—Type | Crankcase—Upper Half Integral with Cylinders | VALVES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | With Bare Engine | With Standard Accessories | | | | | | Arrangement | Exhaust Head Material (S.A.E. No.) | Max. Head Diameter (In.) | | Min. Port Diameter (In.) | | Lift (In.) | | Stem Diameter (In.) | |
| | | | | | | | | | | | | | Intake | Exhaust | Intake | Exhaust | Intake | Exhaust | Intake | Exhaust |
| | Gray Marine, Cont. | | | | | | | | | | | | | | | | | | | |
| 1 | Phantom 4-75 | M | 4-3 1/16x4 1/2 | ..... | 75-3600 | 162 | 8.00 | ..... | N | In | L | SII | 1.64 | 1.45 | 1.37 | 1.18 | .331 | .331 | .340 | .312 |
| 2 | Phantom 6-112 | M | 6-3 1/16x4 1/2 | ..... | 112-3600 | 226 | 8.00 | ..... | N | In | L | SII | 1.51 | 1.33 | 1.37 | 1.18 | .311 | .311 | .340 | .339 |
| 3 | Phantom 6-125 | M | 6-3 1/16x4 1/2 | ..... | 125-3600 | 244 | 7.70 | ..... | N | In | L | SII | 1.70 | 1.42 | 1.56 | 1.31 | .311 | .311 | .339 | .343 |
| 4 | Fireball 4-50 | M | 4-2 1/2x3 | ..... | 50-4000 | 91 | 7.45 | ..... | N | In | L | SII | 1.20 | 1.02 | 1.06 | .875 | .284 | .284 | .314 | .333 |
| 5 | Fireball 4-90 | M | 4-3 1/16x4 1/2 | ..... | 90-4000 | 162 | 8.00 | ..... | N | In | L | SII | 1.64 | 1.45 | 1.16 | 1.07 | .331 | .331 | .340 | .316 |
| 6 | Fireball 6-140 | M | 6-3 1/16x4 1/2 | ..... | 140-4000 | 244 | 9.00 | ..... | N | In | L | SII | 1.70 | 1.56 | 1.43 | 1.31 | .360 | .360 | .339 | .339 |
| 7 | Fireball 6-160 | M | 6-3 1/16x4 1/2 | ..... | 160-4000 | 244 | 9.1 | ..... | N | In | L | SII | 1.70 | 1.56 | 1.43 | 1.31 | .360 | .360 | .339 | .371 |
| 8 | Racing 91 | M | 4-2 1/16x3 1/2 | ..... | 65-4600 | 91 | 9.84 | ..... | N | In | L | SII | 1.33 | 1.23 | 1.16 | 1.07 | .284 | .284 | .313 | .313 |
| 9 | Racing 244 | M | 6-3 1/16x4 1/2 | ..... | 190-5000 | 244 | 9.14 | ..... | N | In | L | SII | 1.70 | 1.56 | 1.56 | 1.43 | .360 | .360 | .339 | .371 |
| 10 | 100 | M | 6-3 1/16x4 1/2 | ..... | 100-3400 | 226.0 | 6.00 | ..... | N | In | L | SII | 1.51 | 1.33 | 1.37 | 1.18 | .311 | .311 | .340 | .339 |
| 11 | 115 | M | 6-3 1/16x4 1/2 | ..... | 115-3600 | 244.0 | 7.70 | ..... | N | In | L | SII | 1.70 | 1.42 | 1.56 | 1.31 | .311 | .311 | .339 | .343 |
| 12 | 150 | M | 6-4x4 1/2 | ..... | 150-3400 | 330.0 | 7.75 | ..... | N | In | L | SII(x) | 1.89 | 1.58 | 1.62 | 1.37 | .354 | .354 | .403 | .401 |
| 13 | Hall-Scott (m) (H) 136 | T,B | 6-4 1/2x5 | 157-2600 | 136-2600 | 477.1 | 6.00 | 375-1700 (BE) | W | In | I | 2112 | 2.15 | 2.02 | 2.00 | 1.75 | .450 | .450 | .435 | .434 |
| 14 | (H) 504 | T,B | 6-4 1/2x5 | 180-2500 | 159-2500 | 504.0 | 6.00 | 425-1600 (BE) | W | In | I | 2112 | 2.15 | 2.02 | 2.00 | 1.75 | .450 | .450 | .435 | .434 |
| 15 | (m) (H) 180-1-3-5 | B,T | 6-5x6 | 208-2200 | 188-2100 | 707.0 | 6.00 | 540-1500 (BE) | W | In | I | 2112 | 2.63 | 2.38 | 2.38 | 2.02 | .482 | .482 | .497 | .526 |
| 16 | (m) (H) 190-2-3-5 | B,T | 6-5 1/2x6 | 220-2200 | 200-2200 | 779.0 | 6.00 | 625-1300 (BE) | W | In | I | 2112 | 2.63 | 2.38 | 2.38 | 2.02 | .482 | .482 | .497 | .526 |
| 17 | (H) 190-1 | B,T | 6-5 1/2x6 | 235-2200 | 215-2200 | 779.0 | 6.00 | 640-1400 (BE) | W | In | I | 2112 | 2.63 | 2.38 | 2.38 | 2.02 | .482 | .482 | .497 | .526 |
| 18 | 470 | T,Ind | 6-5 1/2x6 | 250-2100 | 224-2100 | 855.3 | 5.50 | 660-1600 (BE) | N | Se | I | 2112 | 2.63 | 2.38 | 2.38 | 2.02 | .547 | .547 | .497 | .528 |
| 19 | (m) 480 | T,Ind | 6-5 1/2x6 | 296-2100 | 240-2100 | 934.8 | 5.70 | 760-1400 (BE) | N | Se | I | 2112 | 2.63 | 2.38 | 2.38 | 2.02 | .547 | .547 | .497 | .528 |
| 20 | (m) 400 | T,Ind | 6-5 3/4x7 | 290-1800 | 264-1800 | 1090.0 | 5.70 | 930-1300 (BE) | N | Se | I | 2112 | 2.63 | 2.38 | 2.38 | 2.02 | .547 | .547 | .497 | .528 |
| 21 | Invader 186-87 | M | 6-5 1/2x7 | ..... | 252-2100 | 997.8 | 5.09 | ..... | N | In | I | 2112 | 2.87 | 2.87 | 2.62 | 2.62 | .482 | .482 | .497 | .528 |
| 22 | Invader 168-69 | M | 6-5 1/2x7 | ..... | 275-2100 | 997.8 | 5.09 | ..... | N | In | I | 2112 | 2.87 | 2.87 | 2.62 | 2.62 | .482 | .482 | .497 | .528 |
| 23 | Defender 2286-87 | M | 12-5 1/2x7 | ..... | 605-2100 | 2181.0 | 7.00 | ..... | N | Se | I | 2112 | 2.87 | 2.75 | 2.62 | 2.50 | .482 | .482 | .497 | .528 |
| 24 | Defender 2268-99 | M,Ind | 12-5 3/4x7 | ..... | 630-2100 | 2181.0 | 7.00 | ..... | N | Se | I | 2112 | 2.87 | 2.75 | 2.62 | 2.50 | .482 | .482 | .497 | .528 |
| 25 | Hercules BXB | M,Tr,Ind | 2-2 1/16x3 | 18-2300 | 8.5-2300 | 39.0 | 6.00 | 28-1200 (BE) | N | In | L | Aus | 1.30 | 1.05 | 1.12 | .875 | .200 | .200 | .248 | .248 |
| 26 | NXA | M,Tr,Ind | 2-3x4 | 13-2000 | 11-2000 | 56.5 | 5.50 | 28-1100 (BE) | N | In | L | Aus | 1.48 | 1.35 | 1.25 | 1.12 | .250 | .250 | .310 | .316 |
| 27 | NXB | M,Tr,Ind | 2-3 1/4x4 | 16-2000 | 13-2000 | 66.3 | 5.50 | 48-1100 (BE) | N | In | L | Aus | 1.48 | 1.35 | 1.25 | 1.12 | .250 | .250 | .310 | .310 |
| 28 | ZXA | M,Tr,Ind | 4-2 1/2x3 | 23-3800 | 19-3800 | 58.8 | 6.10 | 37-1800 (BE) | N | In | L | Aus | 1.30 | 1.05 | 1.12 | .875 | .200 | .200 | .248 | .248 |
| 29 | ZXB | T,Tr,M,Ind | 4-2 5/8x3 | 25-3800 | 21-3800 | 64.9 | 6.10 | 39-1800 (BE) | N | In | L | Aus | 1.30 | 1.05 | 1.12 | .875 | .200 | .200 | .248 | .248 |
| 30 | IXA | T,Tr,M,Ind | 4-3x4 | 40-3200 | 34-3200 | 113.0 | 5.50 | 79-2000 (BE) | N | In | L | Aus | 1.48 | 1.35 | 1.25 | 1.12 | .250 | .250 | .310 | .310 |
| 31 | IXB | T,Tr,M,Ind | 4-3 1/4x4 | 47-3200 | 40-3200 | 133.0 | 5.50 | 92-1800 (BE) | N | In | L | Aus | 1.48 | 1.35 | 1.25 | 1.12 | .250 | .250 | .310 | .316 |
| 32 | IXLB | T,Tr,M,Ind | 4-3 1/4x4 1/2 | 49-3200 | 42-3200 | 141.0 | 6.50 | 96-1800 (BE) | N | In | L | Aus | 1.48 | 1.35 | 1.25 | 1.12 | .250 | .250 | .310 | .310 |
| 33 | JX4E | T,Tr,M,Ind | 4-3 1/4x4 1/2 | 52-2900 | 44-2900 | 164.0 | 6.70 | 121-1400 (BE) | N | In | L | 2112N | 1.66 | 1.56 | 1.50 | 1.37 | .356 | .356 | .373 | .373 |
| 34 | JX4C | T,Tr,M,Ind | 4-3 3/4x4 1/2 | 60-2900 | 51-2900 | 188.0 | 6.70 | 139-1400 (BE) | N | In | L | 2112N | 1.66 | 1.56 | 1.50 | 1.37 | .356 | .356 | .373 | .373 |
| 35 | JX4D | T,Tr,M,Ind | 4-4x4 1/2 | 68-2900 | 57-2900 | 214.0 | 6.70 | 157-1400 (BE) | N | In | L | 2112N | 1.66 | 1.56 | 1.50 | 1.37 | .356 | .356 | .373 | .373 |
| 36 | QXA | T,B,Tr,M,Ind | 6-3 1/4x4 1/2 | 64-3200 | 54.5-3200 | 190.9 | 6.50 | 132-1300 (BE) | N | In | L | Aus | 1.48 | 1.39 | 1.31 | 1.12 | .311 | .311 | .310 | .310 |
| 37 | QXB | T,B,Tr,M,Ind | 6-3 1/4x4 1/2 | 69-3200 | 59-3200 | 205.0 | 6.50 | 142-1400 (BE) | N | In | L | Aus | 1.48 | 1.39 | 1.31 | 1.12 | .311 | .311 | .310 | .310 |
| 38 | QXC | T,B,Tr,M,Ind | 6-3 3/4x4 1/2 | 77-3200 | 66-3200 | 221.0 | 6.50 | 159-1400 (BE) | N | In | L | Aus | 1.48 | 1.39 | 1.50 | 1.25 | .311 | .311 | .310 | .310 |
| 39 | QXLD | T,B,Tr,M,Ind | 6-3 1/4x4 3/4 | 91-3200 | 77-3200 | 236.7 | 6.50 | 189-1400 (BE) | N | In | L | Aus | 1.61 | 1.39 | 1.50 | 1.25 | .311 | .311 | .310 | .310 |
| 40 | JXE | T,B,Tr,M,Ind | 6-3 1/4x4 1/2 | 91-3200 | 77-3200 | 245.0 | 6.50 | 184-1400 (BE) | N | In | L | Aus | 1.66 | 1.56 | 1.50 | 1.37 | .356 | .356 | .373 | .373 |
| 41 | JXB | T,B,Tr,M,Ind | 6-3 3/4x4 1/2 | 98-3200 | 83-3200 | 263.0 | 6.50 | 190-1400 (BE) | N | In | L | Aus | 1.66 | 1.56 | 1.50 | 1.37 | .356 | .356 | .373 | .373 |
| 42 | JXC | T,B,Tr,M,Ind | 6-3 3/4x4 1/2 | 103-3200 | 87.5-3200 | 282.0 | 6.50 | 207-1400 (BE) | N | In | L | Aus | 1.66 | 1.56 | 1.50 | 1.37 | .356 | .356 | .373 | .373 |
| 43 | JXD | T,B,Tr,M,Ind | 6-4x4 1/2 | 113-3000 | 96-3000 | 320.0 | 6.50 | 240-1200 (BE) | N | In | L | Aus | 1.66 | 1.56 | 1.50 | 1.37 | .356 | .356 | .373 | .373 |
| 44 | JXLD | T,B,Tr,M,Ind | 6-4x4 1/4 | 131-3200 | 111-3200 | 339.0 | 6.90 | 272-1400 (BE) | N | In | L | Aus | 1.83 | 1.67 | 1.72 | 1.50 | .356 | .356 | .373 | .373 |
| 45 | WXC-3 | T,B,Tr,M,Ind | 6-4 1/4x4 1/2 | 131-2600 | 111-2600 | 383.0 | 6.60 | 296-1400 (BE) | N | In | L | Aus | 1.87 | 1.75 | 1.62 | 1.56 | .388 | .388 | .373 | .373 |
| 46 | WXLC | T,B,Tr,M,Ind | 6-4x4 3/4 | 123-2600 | 104-2600 | 358.0 | 6.60 | 275-1200 (BE) | N | In | L | Aus | 1.87 | 1.75 | 1.68 | 1.62 | .388 | .388 | .373 | .373 |
| 47 | WXLC-3 | T,B,Tr,M,Ind | 6-4 1/4x4 3/4 | 139-2600 | 118-2600 | 404.0 | 6.60 | 312-1300 (BE) | N | In | L | Aus | 1.87 | 1.75 | 1.68 | 1.62 | .388 | .388 | .373 | .373 |
| 48 | TDXB | T,B,Tr,M,Ind | 6-4 1/4x5 1/4 | 160-2600 | 136-2600 | 474.0 | 6.50 | 368-1400 (BE) | N | In | L | 2112 | 2.06 | 2.00 | 1.87 | 1.75 | .388 | .388 | .373 | .437 |
| 49 | RXB | T,B,Tr,M,Ind | 6-4 1/4x5 1/4 | 137-2400 | 116-2400 | 501.0 | 6.50 | 350-1200 (BE) | N | In | L | Aus | 2.00 | 2.00 | 1.75 | 1.75 | .388 | .388 | .373 | .373 |
| 50 | RXC | T,B,Tr,M,Ind | 6-4 3/4x5 1/4 | 143-2400 | 121-2400 | 529.2 | 6.50 | 370-1200 (BE) | N | In | L | Aus | 2.00 | 2.00 | 1.75 | 1.75 | .388 | .388 | .373 | .373 |
| 51 | RXLC | T,B,Tr,M,Ind | 6-4 3/4x5 1/4 | 148-2400 | 124-2400 | 529.2 | 6.20 | 406-1100 (BE) | N | In | L | Aus | 2.00 | 2.00 | 1.81 | 1.75 | .388 | .388 | .373 | .373 |
| 52 | RXLD | T,B,Tr,M,Ind | 6-4 3/4x5 1/4 | 154-2400 | 131-2400 | 558.0 | 6.50 | 430-1100 (BE) | N | In | L | Aus | 2.00 | 2.00 | 1.81 | 1.75 | .388 | .388 | .373 | .373 |
| 53 | RXLDH | T,B,Tr,M,Ind | 6-4 3/4x5 1/4 | 180-2800 | 153-2800 | 558.0 | 6.50 | 443-1400 (BE) | N | In | L | 2112 | 2.06 | 2.00 | 1.87 | 1.75 | .442 | .442 | .435 | .435 |
| 54 | HXB | T,B,Tr,M,Ind | 6-5x6 | 186-2000 | 135-2000 | 707.0 | 5.75 | 502- 900 (BE) | N | Se | L | Aus | 2.43 | 2.31 | 2.12 | 2.00 | .488 | .488 | .498 | .490 |
| 55 | HXC | T,B,Tr,M,Ind | 6-5 1/2x6 | 175-2000 | 149-2000 | 779.0 | 5.75 | 556- 900 (BE) | N | Se | L | Aus | 2.43 | 2.31 | 2.12 | 2.00 | .488 | .488 | .498 | .490 |
| 56 | HXD | T,B,Tr,M,Ind | 6-5 3/4x6 | 202-2000 | 172-2000 | 855.0 | 5.75 | 645- 900 (BE) | N | Se | L | Aus | 2.43 | 2.31 | 2.12 | 2.00 | .488 | .488 | .498 | .490 |
| 57 | HXE | T,B,Tr,M,Ind | 6-5 1/4x6 | 227-2000 | 193-2000 | 935.0 | 6.20 | 750-1000 (BE) | N | Se | L | Aus | 2.43 | 2.31 | 2.12 | 2.00 | .488 | .488 | .498 | .490 |
| 58 | International U-1 | Tr,Ind | 4-2 5/8x2 5/8 | 18.4-2500 | 16-2500 | 89.5 | 6.50 | 38-1450 (EA) | N | In | L | CNS | 1.10 | .91 | .96 | .79 | .222 | .222 | .310 | .310 |
| 59 | U-2A | Tr,Ind | 4-3x4 | 25.8-1800 | 24-1800 | 113.1 | 6.00 | 62-1200 (EA) | W | In | I | CNS | 1.34 | 1.16 | 1.19 | 1.00 | .261 | .261 | .341 | .341 |
| 60 | U-4 | Tr,Ind | 4-3 5/8x4 1/2 | 33.5-1800 | 31.5-1800 | 152.1 | 5.90 | 108-1250 (EA) | D | In | I | CNS | 1.50 | 1.38 | 1.34 | 1.21 | .343 | .343 | .341 | .341 |
| 61 | U-6 | Tr,Ind | 6-3 1/2x5 1/4 | 43-1500 | 41-1500 | 247.7 | 5.85 | 182- 900 (EA) | D | In | I | CNS | 1.81 | 1.69 | 1.69 | 1.43 | .438 | .438 | .372 | .372 |
| 62 | U-9 | Tr,Ind | 4-4 1/4x5 1/2 | 88.5-1500 | 85-1500 | 334.4 | 5.40 | 229- 950 (EA) | D | In | I | CNS | 2.10 | 1.91 | 1.87 | 1.68 | .469 | .469 | .402 | .402 |
| 63 | SD-220 | T | 6-3 1/2x3 1/2 | 100-3600 | 90-3600 | 220.5 | 6.50 | 167-1200 (EA) | N | In | I | XCR | 1.66 | 1.52 | 1.50 | 1.31 | .398 | .398 | .372 | .370 |
| 64 | SD-240 | T | 6-3 1/2x4 .02 | 108-3600 | 93-3400 | 240.3 | 6.50 | 186-1100 (EA) | N | In | I | XCR | 1.66 | 1.52 | 1.50 | 1.31 | .398 | .398 | .372 | .370 |
| 65 | BD-269 | T | 6-3 1/2x4 1/2 | 100-3000 | 88.6-2800 | 269.1 | 6.30 | 216-1000 (EA) | D | In | I | XCR | 1.66 | 1.47 | 1.50 | 1.31 | .332 | .332 | .342 | .341 |
| 66 | RD-372 | T | 6-4 1/2x4 1/2 | 144-3200 | 128-2850 | 372.1 | 6.30 | 280-1000 (EA) | D | In | I | SII | 2.25 | 1.55 | 2.00 | 1.38 | .450 | .450 | .434 | .434 |
| 67 | RD-406 | T | 6-4 1/2x4 1/2 | 154-3200 | 138-2750 | 405.9 | 6.30 | 314-1000 (EA) | D | In | I | SII | 2.25 | 1.55 | 2.00 | 1.38 | .450 | .450 | .434 | .434 |
| 68 | RD-450 | T | 6-4 1/2x5 | 162-3000 | 146-2600 | 451.0 | 6.20 | 354-1000 (EA) | D | In | I | SII | 2.25 | 1.55 | 2.00 | 1.38 | .450 | .450 | .434 | .434 |
| 69 | Jacobs O-240-U | M | 6-4 1/2x4 | 100-2800 | ..... | 241.0 | 6.50 | 205-1700 (BE) | D | In | I | SII | 2.00 | 1.80 | 1.87 | 1.62 | .500 | .500 | .433 | .433 |
| 70 | O-360-U | T,B,M | 6-4 1/2x4 | 150-2800 | ..... | 361.0 | 6.50 | 310-1700 (BE) | D | In | I | SII | 2.00 | 1.80 | 1.87 | 1.62 | .500 | .800 | .433 | .433 |
| 71 | Kermath Cub | M | 4-2 5/8x3 | ..... | 25-3400 | 53.0 | 6.00 | 40-1700 (EA) | N | In | L | SII | 1.25 | 1.12 | 1.12 | .875 | .250 | .250 | .310 | .319 |
| 72 | Jeep | M | 4-3 1/2x4 1/2 | ..... | 40-2700 | 134.0 | 6.48 | 108-2200 (EA) | N | In | L | ..... | 1.53 | 1.46 | 1.34 | 1.23 | .359 | .359 | .373 | .373 |
| 73 | Jeep | M | 4-3 1/2x4 1/2 | ..... | 61-3600 | 134.0 | 6.48 | 108-2200 (EA) | N | In | L | ..... | 1.53 | 1.46 | 1.34 | 1.28 | .359 | .359 | .373 | .373 |
| 74 | Prince | M | 6-3 1/2x4 1/2 | ..... | 95-3600 | 221.0 | 6.50 | ..... | N | In | L | SII | 1.87 | 1.67 | 1.81 | 1.61 | .281 | .281 | .310 | .310 |
| 75 | Rover | M | 6-4x4 1/2 | ..... | 122-3000 | 320.0 | 6.90 | 235-2000 (EA) | N | In | L | CNS | 1.94 | 1.62 | 1.62 | 1.37 | .378 | .378 | .373 | .373 |
| 76 | Mate | M | 6-4 1/2x4 1/2 | ..... | 155-3000 | 404.0 | 6.50 | ..... | N | In | L | CNS | 2.06 | 1.67 | 1.81 | 1.62 | .500 | .500 | .373 | .373 |
| 77 | Farer | M,Ind | 6-5x5 1/2 | ..... | 200-2400 | 678.0 | 5.70 | 480-1000 (EA) | N | Se | L | CNS | 2.62 | 2.37 | 2.37 | 2.00 | .437 | .375 | .437 | .437 |
| 78 | Raider-6 | M,Ind | 6-5 1/2x6 | ..... | 250-2400 | 779.0 | 6.00 | 620-2200 (EA) | N | Se | I | Tun | 1.93 | 1.93 | 1.76 | 1.76 | .375 | .375 | .437 | .437 |
| 79 | Raider-12 | M,Ind | 12-5 1/2x6 | ..... | 500-2400 | 1560.0 | 5.70 | 1070-1400 (EA) | N | Se | I | CNS | 1.93 | 1.93 | 1.76 | 1.76 | .375 | .375 | .437 | .437 |
| 80 | Lathrop Standard | M | 3-5 1/16x6 1/2 | ..... | 27- 700 | 412.1 | ..... | 206- 600 (EA) | N | Se | Th | CNS | 2.25 | 2.25 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 81 | Standard | M | 3-5 1/16x6 1/2 | ..... | 34- 800 | 453.2 | ..... | 237- 700 (EA) | N | Se | Th | CNS | 2.25 | 2.25 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 82 | LH | M | 4-3 1/2x4 | ..... | 38-2200 | 133.0 | ..... | 92-2000 (EA) | N | In | ..... | CNS | ..... | ..... | 1.25 | 1.12 | .312 | .312 | .312 | .312 |
| 83 | LH-Master | M | 4-4x4 1/2 | ..... | 68-2800 | 214.0 | ..... | ..... | N | In | L | CNS | 1.62 | 1.75 | 1.50 | 1.37 | .375 | .375 | .375 | .375 |
| 84 | Standard | M | 4-5 1/2x6 1/2 | ..... | 29- 700 | 549.5 | ..... | 233- 500 (EA) | N | Se | Th | CNS | 2.25 | 2.25 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 85 | Standard | M | 4-5 1/2x6 1/2 | ..... | 49- 900 | 617.7 | ..... | 342- 600 (EA) | N | Se | Th | CNS | 2.25 | 2.25 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 86 | Engineers | M | 6-5 1/2x7 | ..... | 64-1000 | 665.2 | ..... | 373- 650 (EA) | N | Se | L | CNS | 2.68 | 2.50 | 2.31 | 2.12 | .375 | .375 | .500 | .500 |
| 87 | Engineers | M | 6-6x7 | ..... | 76-1000 | 791.6 | ..... | 461- 700 (EA) | N | Se | L | CNS | 2.68 | 2.50 | 2.31 | 2.12 | .375 | .375 | .500 | .500 |

For abbreviations, see pages 164 and 165

*For Directory of the Manufacturers listed above, see page 190.*

# ENGINES—*Continued*

| VALVES | | | | PISTONS | | | | | CONNECTING RODS | | | CRANKSHAFT | | | | | | | | | | | CARBURETOR | | | OVERALL DIMENSIONS (In.) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Seats | | | | | | | | | | | | | | Crank-Pin | MAIN BEARINGS | | | | | | | | | | | | | | | |
| Angle (Deg.) | Inserts Used? | Insert Material (S.A.E. No.) | Camshaft Drive—Type | Material | Weight with Pins, Rings, Bushings (Oz.) | Piston Pin—Diameter and Length (In.) | Number of Rings per Piston | Material | Center to Center Length (In.) | Weight with Bushing and Cap (Oz.) | Material | Counter Balance Used | Diameter and Length (In.) | Number | Diameter and Length (In.) Front | Diameter and Length (In.) Rear | Oil Pressure to— | Make | Size | Engine Weight without Carburetor or Ignition (Lb.) | Width | Height | Length | Clutch Housing (S.A.E. Nos.) | Line Number |
| (h) | N | ..... | HG | Al | ..... | .859x2.88 | 4 | CS | 7 | ..... | 1045 | N | 1.93x1.31 | 3 | 2.25x1.89 | 2.25x1.18 | acdr | Zen | 1½ | 500 | 23⅛ | 22⅞ | 33 | ..... | 1 |
| (k) | N | ..... | HG | Al | ..... | .859x2.81 | 4 | CS | 7 | ..... | 1045 | Y | 2.06x1.31 | 4 | 2.25x1.73 | 2.25x1.26 | acdr | Zen | 1½ | 650 | 21⅛ | 23¼ | 39⅛ | ..... | 2 |
| 45 | N | ..... | HG | Al | ..... | .859x2.87 | 4 | CS | 8⅛ | ..... | 1045 | Y | 2.12x1.37 | 4 | 2.37x2.06 | 2.37x1.43 | acdr | Zen | 1½ | 790 | 25⅛ | 23⅛ | 42⅛ | ..... | 3 |
| (h) | N | ..... | HG | Al | ..... | .703x2.43 | 3 | CS | 5⅝ | ..... | 1045 | N | 1.78x1.78 | 1.78x1.37 | acdr | Zen | 1½ | 365 | 17⅝ | 19⅛ | 29¼ | ..... | 4 |
| (h) | N | ..... | HG | Al | ..... | .859x2.68 | 4 | CS | 7 | ..... | 1045 | N | 1.93x1.31 | 3 | 2.25x1.89 | 2.25x1.18 | acdr | Zen | 1½ | 500 | 23⅛ | 22⅞ | 33 | ..... | 5 |
| 45 | N | ..... | HG | Al | ..... | .859x2.87 | 4 | CS | 8⅛ | ..... | 1045 | Y | 2.12x1.37 | 4 | 2.37x2.06 | 2.37x1.43 | acdr | Zen | 1½ | 790 | 25⅛ | 23⅛ | 42⅛ | ..... | 6 |
| 45 | N | ..... | HG | Al | ..... | .859x2.87 | 4 | CS | 8⅛ | ..... | 1045 | Y | 2.12x1.37 | 4 | 2.37x2.06 | 2.37x1.43 | acdr | Zen | 1½ | 790 | 27⅛ | 25⅛ | 42⅛ | ..... | 7 |
| (h) | N | ..... | HG | Al | ..... | .703x2.43 | 3 | CS | 5⅝ | ..... | 1045 | N | 1.51x1.18 | 3 | 1.75x1.78 | 1.75x1.37 | acdr | Zen | 1½ | ..... | 17⅝ | 19⅛ | 29¼ | ..... | 8 |
| (k) | N | ..... | HG | Al | ..... | .874x2.92 | 4 | CS | 8⅝ | ..... | 1045 | Y | 2.12x1.37 | 4 | 2.37x2.06 | 2.37x1.43 | acdr | Zen | 1½ | ..... | 29⅜ | 27⅛ | 37⅛ | ..... | 9 |
| (k) | N | ..... | HG | Al | ..... | .859x2.81 | 4 | 1030 | 7 | ..... | 1045 | ... | 2.06x1.31 | 4 | 2.25x1.73 | 2.25x1.26 | acdr | Zen | 1½ | 645 | 21⅛ | 23¼ | 39⅛ | ..... | 10 |
| 45 | N | ..... | HG | Al | ..... | .859x2.87 | 4 | 1035 | 8½ | ..... | 1045 | ... | 2.12x1.37 | 4 | 2.37x2.06 | 2.37x1.43 | acdr | Zen | 1½ | 790 | 25⅛ | 23⅛ | 42⅛ | ..... | 11 |
| (k) | N | ..... | HG | Al | ..... | 1.10x3.43 | 5 | 1035 | 8½ | ..... | 1045 | ... | 2.25x1.58 | 7 | 2.62x2.16 | 2.62x1.56 | acdr | Zen | 2 | 1000 | 24⅛ | 28¼ | 48⅛ | ..... | 12 |
| (h) | E | 4140° | Ch | Al | 53 | 1.12x3.98 | 4 | 3135 | 11 | 79.1 | 4140 | Y | 2.62x2.00 | 8 | 3.00x1.46 | 3.00x2.28 | acdefg | Zen | 2 | 1275* | 58⅝ | 20⅛ | 70⅛ | 2 | 13 |
| (h) | E | 4140° | Ch | Al | 74.4 | 1.12x3.98 | 4 | 3135 | 11 | 79.1 | 4140 | Y | 2.62x2.00 | 8 | 3.00x1.46 | 3.00x2.28 | acdefg | Zen | 2 | 1275* | 58⅝ | 20⅛ | 70⅛ | 2 | 14 |
| (h) | E | 4140° | Ch | Al | 96 | 1.37x4.20 | 4 | 3135 | 11 | 104 | 4140 | Y | 2.75x2.44 | 7 | 3.25x2.19 | 3.25x2.50 | acdefg | Zen | 2 | 1786* | 54½ | 22 | 71⅛ | 1, 2 | 15 |
| (h) | E | 4140° | Ch | Al | 101 | 1.37x4.44 | 6 | 3135 | 11 | 104 | 4140 | Y | 2.75x2.44 | 7 | 3.25x2.19 | 3.25x2.50 | acdefg | Zen | 2 | 1786* | 54½ | 22 | 71⅛ | 1, 2 | 16 |
| (h) | E | 4140° | Ch | Al | 101 | 1.37x4.44 | 6 | 3135 | 11 | 104 | 4140 | Y | 2.75x2.44 | 7 | 3.25x2.19 | 3.25x2.50 | acdefg | Zen | 2½ | 1970* | 58½ | 22 | 71⅛ | 1, 2 | 17 |
| (h) | E | 4140° | HC | Al | 116 | 1.37x4.68 | 5 | 3140 | 12 | 132 | 4140 | Y | 3.00x2.43 | 7 | 3.25x2.09 | 3.25x3.12 | acdefg | Zen | 2½ | 2150* | 28 | 44⅛ | 60⅛ | 1, 2, 0 | 18 |
| (h) | E | 4140° | HC | Al | 132 | 1.37x4.93 | 5 | 3140 | 12 | 132 | 4140 | Y | 3.00x2.43 | 7 | 3.25x2.09 | 3.25x3.12 | acdefg | Zen | 2½ | 2150* | 28 | 44⅛ | 60⅛ | 1, 2, 0 | 19 |
| (h) | E | 4140° | HC | Al | 120 | 1.37x4.93 | 6 | 3140 | 12 | 132 | 4140 | Y | 3.00x2.43 | 7 | 3.25x2.09 | 3.25x3.12 | acdefg | Zen | 2½ | 2150* | 28 | 44⅛ | 60⅛ | 1, 2, 0 | 20 |
| 30 | N | ..... | Ch | Al | 106 | 1.37x4.68 | 5 | AS | 11 | 117 | 4140 | Y | 2.50x2.45 | 7 | 2.75x1.94 | 2.75x1.94 | acdefg | Zen(2) | 2 | 3265* | 25 | 47⅛ | 90 | ..... | 21 |
| 30 | N | ..... | HC | Al | 106 | 1.37x4.68 | 5 | AS | 11 | 117 | 4140 | Y | 2.50x2.45 | 7 | 2.75x1.94 | 2.75x1.94 | acdefgr | Zen(2) | 2 | 2200* | 25 | 39⅝ | 74⅛ | ..... | 22 |
| 30 | E | 4140 | HC | Al | 128 | 1.37x4.94 | 6 | 3140 | 12 | 237▲ | 4140 | Y | 3.00x2.43 | 7 | 3.25x2.09 | 3.25x2.09 | acdefgr | Zen(3) | 2½ | 4560* | 43⅝ | 50¼ | 108⅛ | ..... | 23 |
| 30 | E | 4140 | HC | Al | 128 | 1.37x4.94 | 6 | 3140 | 12 | 237▲ | 4140 | Y | 3.00x2.43 | 7 | 3.25x2.09 | 3.25x2.09 | acdefgr | Zen(3) | 2½ | 3650* | 45 | 42¾ | 88 | ..... | 24 |
| 30 | N | ..... | HG | CI | 28 | .687x2.50 | 3 | 3140 | 8½ | 15 | 1045 | Y | 1.90x1.00 | 2 | 2.00x1.25 | 2.00x1.37 | acg | Op | ⅝ | 131 | 16½ | 15½ | 18⅛ | 5, 6 | 25 |
| 30 | N | ..... | HG | CI | 28 | .750x2.56 | 3 | 3140 | 6½ | 21 | 1045 | Y | 1.75x1.12 | 2 | 2.00x1.56 | 2.00x1.62 | acg | Op | ⅝ | 270 | 17¾ | 18¾ | 20⅛ | 4, 5 | 26 |
| 30 | N | ..... | HG | CI | 29.5 | .750x2.81 | 3 | 3140 | 6½ | 21 | 1045 | Y | 1.75x1.12 | 2 | 2.00x1.56 | 2.00x1.62 | acg | Op | ⅝ | 270 | 17¾ | 18¾ | 20⅛ | 4, 5 | 27 |
| 30 | N | ..... | HG | CI | 18 | .687x2.20 | 3 | 3140 | 5½ | 16 | 4140 | N | 1.50x1.00 | 3 | 2.00x1.31 | 2.00x1.37 | acg | Op | Op | 179 | 16½ | 16¼ | 23⅛ | 5, 6 | 28 |
| 30 | N | ..... | HG | AC | 21 | .687x2.33 | 3 | 3140 | 5½ | 16 | 4140 | N | 1.50x1.00 | 3 | 2.00x1.31 | 2.00x1.37 | acg | Op | Op | 179 | 16½ | 16¼ | 23⅛ | 5, 6 | 29 |
| 30 | N | ..... | HG | AC | 28 | .750x2.56 | 3 | 3140 | 6½ | 21 | CS‡ | N | 1.75x1.12 | 3 | 2.00x1.56 | 2.00x1.62 | acg | Op | Op | 255 | 16½ | 19¼ | 38⅛ | 4, 5 | 30 |
| 30 | N | ..... | HG | AC | 29.5 | .750x2.81 | 3 | 3140 | 6½ | 21 | CS‡ | N | 1.75x1.12 | 3 | 2.00x1.56 | 2.00x1.62 | acg | Op | Op | 293 | 16½ | 19¼ | 38⅛ | 4, 5 | 31 |
| 30 | N | ..... | HG | Al | 29.5 | .75x2.81 | 3 | 3140 | 6½ | 21 | 4140 | ... | 1.75x1.12 | 3 | 2.00x1.56 | 2.00x1.62 | acdg | Op | Op | 293 | 16½ | 19¼ | 38⅛ | 4, 5 | 32 |
| 45 | N | ..... | HG | Al | 31 | 1.00x2.90 | 4 | 1040 | 8 | 37 | 1046 | ..... | 2.00x1.80 | 6 | 2.50x1.31 | 2.50x2.12 | acg | Op | 1¼ | 470 | 19½ | 23 | 30½ | 3, 4, 5 | 33 |
| 45 | N | ..... | HG | Al | 37.5 | 1.00x3.25 | 4 | 1040 | 8 | 37 | 1046 | ..... | 2.00x1.80 | 6 | 2.50x1.31 | 2.50x2.12 | acg | Op | 1¼ | 470 | 19½ | 23 | 30½ | 3, 4, 5 | 34 |
| 45 | N | ..... | HG | Al | 40.6 | 1.00x3.50 | 4 | 1040 | 8 | 37 | 1046 | ..... | 2.00x1.80 | 6 | 2.50x1.31 | 2.50x2.12 | acg | Op | 1¼ | 470 | 19½ | 23 | 30½ | 3, 4, 5 | 35 |
| 30 | N | ..... | HG | Al | 23.1 | .875x2.67 | 4 | 1035 | 7 | 26 | CS‡ | Op | 2.00x1.25 | 7 | 2.50x1.31 | 2.50x1.93 | acg | Op | 1¼ | 440 | 17½ | 20⅛ | 35⅛ | 5 | 36 |
| 30 | N | ..... | HG | Al | 24 | .875x2.81 | 4 | 1035 | 7 | 26 | CS‡ | Op | 2.00x1.25 | 7 | 2.50x1.31 | 2.50x1.93 | acg | Op | 1¼ | 440 | 17½ | 20⅛ | 35⅛ | 5 | 37 |
| 30 | N | ..... | HG | Al | 26 | .875x2.92 | 4 | 1035 | 7 | 26 | CS‡ | Op | 2.00x1.25 | 7 | 2.50x1.31 | 2.50x1.93 | acg | Op | 1¼ | 440 | 17½ | 20⅛ | 35⅛ | 5 | 38 |
| 30 | N | ..... | HG | Al | 26 | .875x2.92 | 3 | 1035 | 7 | 26 | CS‡ | Y | 2.00x1.25 | 7 | 2.50x1.31 | 2.50x1.93 | acg | Op | 1¼ | 445 | 17½ | 20⅛ | 35⅛ | 3, 4, 5 | 39 |
| 45 | N | ..... | HG | Al | 31 | 1.00x2.92 | 4 | 1040 | 8 | 37 | CS‡ | Op | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | acg | Op | 1¼ | 890 | 18½ | 24½ | 39 | 3, 4, 5 | 40 |
| 45 | N | ..... | HG | Al | 35.5 | 1.00x3.17 | 4 | 1040 | 8 | 37 | CS‡ | Op | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | acg | Op | 1¼ | 905 | 18½ | 24½ | 39 | 3, 4, 5 | 41 |
| 45 | N | ..... | HG | Al | 37.5 | 1.00x3.26 | 4 | 1040 | 8 | 37 | CS‡ | Op | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | acg | Op | 1¼ | 905 | 18½ | 24½ | 39 | 3, 4, 5 | 42 |
| 45 | N | ..... | HG | Al | 40.5 | 1.00x3.51 | 4 | 1040 | 8 | 37 | CS‡ | Op | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | acg | Op | 1¼ | 905 | 18½ | 24½ | 39 | 3, 4, 5 | 43 |
| 30 | N | ..... | HG | Al | 44.5 | 1.12x3.44 | 4 | 1035 | 8 | 39.2 | CS‡ | Y | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | acg | Op | 1¼ | 930 | 18½ | 24½ | 39 | 3, 4, 5 | 44 |
| 45 | N | ..... | HG | Al | 50 | 1.12x3.56 | 4 | 1035 | 9½ | 50 | CS‡ | Op | 2.25x1.50 | 7 | 2.62x1.75 | 2.62x2.75 | acdg | Op | 1½ | 820 | 23½ | 28½ | 42⅛ | 2, 3 | 45 |
| 45 | N | ..... | HG | Al | 44 | 1.12x3.56 | 4 | 3140 | 8½ | 60 | CS‡ | Op | 2.25x1.50 | 7 | 2.62x1.75 | 2.62x2.75 | acdg | Op | 1½ | 811 | 23½ | 28½ | 42⅛ | 2, 3 | 46 |
| 45 | N | ..... | HG | Al | 50 | 1.12x3.56 | 4 | 3140 | 8½ | 60 | CS‡ | Op | 2.25x1.50 | 7 | 2.62x1.75 | 2.62x2.75 | acdg | Op | 1½ | 825 | 23½ | 28½ | 42⅛ | 2, 3 | 47 |
| (h) | N | ..... | HG | Al | 63.5 | 1.31x3.62 | 4 | 3140 | 9½ | 79.9 | 1045‡ | Y | 2.62x2.00 | 7 | 3.00x1.93 | 3.00x2.93 | acdg | ..... | 2 | 1345 | 27⅛ | 34⅞ | 47⅛ | 2 | 48 |
| 45 | N | ..... | HG | Al | 60 | 1.25x3.93 | 5 | 3140 | 9½ | 78 | CS‡ | Op | 2.62x2.00 | 7 | 3.00x1.93 | 3.00x2.93 | acdg | Op | 1¾ | 1000 | 23½ | 32⅛ | 46⅛ | 2, 3 | 49 |
| 45 | N | ..... | HG | Al | 63 | 1.25x4.07 | 5 | 3140 | 9½ | 78 | CS‡ | Op | 2.62x2.00 | 7 | 3.00x1.93 | 3.00x2.93 | acdg | Op | 1¾ | 1010 | 23½ | 32⅛ | 46⅛ | 2, 3 | 50 |
| 45 | N | ..... | HG | Al | 65 | 1.25x4.07 | 5 | E-4342 | 9½ | 97 | CS‡ | Op | 3.00x2.00 | 7 | 3.50x1.93 | 3.50x2.93 | acdg | Op | 1¾ | 1195 | 28⅛ | 35⅞ | 46⅛ | 1, 2 | 51 |
| 45 | N | ..... | HG | Al | 68 | 1.25x4.20 | 5 | E-4342 | 9½ | 97 | CS‡ | Op | 3.00x2.00 | 7 | 3.50x1.93 | 3.50x2.93 | acdg | Op | 1¾ | 1195 | 28⅛ | 35⅞ | 46⅛ | 1, 2 | 52 |
| (h) | N | ..... | HG | Al | 68 | 1.50x4.11 | 4 | E-4342 | 9½ | 97 | 1045‡ | Y | 3.00x2.00 | 7 | 3.50x1.93 | 3.50x2.93 | acdg | ..... | 2 | 1470 | 27⅛ | 36⅛ | 47⅛ | 1, 2 | 53 |
| 30 | N | ..... | HG | Al | 90 | 1.50x4.56 | 4 | 3140 | 12 | 166 | 1045‡ | Op | 3.00x2.26 | 7 | 3.50x2.37 | 3.50x3.50 | acdg | Op | 2 | 1810 | 28¼ | 40⅛ | 55⅛ | 00, 0, 1 | 54 |
| 30 | N | ..... | HG | Al | 108 | 1.50x4.56 | 4 | 3140 | 12 | 166 | 1045‡ | Op | 3.00x2.26 | 7 | 3.50x2.37 | 3.50x3.50 | acdg | Op | 2 | 1810 | 28¼ | 40⅛ | 55⅛ | 00, 0, 1 | 55 |
| 30 | N | ..... | HG | Al | 119 | 1.50x4.81 | 4 | 3140 | 12 | 166 | 1045‡ | Op | 3.00x2.25 | 7 | 3.50x2.37 | 3.50x3.50 | acdg | Op | 2 | 1830 | 28¼ | 40⅛ | 55⅛ | 00, 0, 1 | 56 |
| 30 | N | ..... | HG | Al | 126 | 1.50x5.06 | 4 | 3140 | 12 | 166 | 1045‡ | Op | 3.00x2.25 | 7 | 3.50x2.37 | 3.50x3.50 | acdg | Op | 2 | 1830 | 28¼ | 40⅛ | 55⅛ | 00, 0, 1 | 57 |
| 44 | N | ..... | HG | CI | 20 | .688x2.19 | 3 | 1035 | 5 | 15 | 1046‡ | N | 1.50x .76 | 3 | 1.62x1.06 | 1.62x1.06 | acdg | Own | ⅝ | 279* | 16⅛ | 25 | 25⅛ | 5 | 58 |
| 44 | N | ..... | HG | CI | 38 | .918x2.50 | 4 | 1040 | 7⅝ | 33 | 1046‡ | N | 1.75x1.19 | 3 | 2.12x1.37 | 2.12x1.84 | acdfg | Zen | ⅝ | 478* | 17⅛ | 33½ | 30⅛ | 4 | 59 |
| 44 | N | ..... | HG | CI | 53 | 1.11x2.78 | 4 | 1040 | 8 | 37 | 1745‡ | N | 2.25x1.23 | 3 | 2.50x1.49 | 2.50x1.49 | acdfg | Own | 1 | 660* | 18½ | 34½ | 33⅛ | 4 | 60 |
| 44 | E | MA | HG | CI | 82.5 | 1.31x3.23 | 4 | 1040 | 10 | 93 | 1046‡ | N | 2.62x1.72 | 3 | 2.75x1.56 | 2.75x1.56 | acdfg | Own | 1¼ | 955* | 20½ | 38½ | 37 | 2 | 61 |
| 44 | E | MA | HG | CI | 115 | 1.50x3.70 | 5 | 1040 | 11 | 124 | 1745‡ | N | 3.00x1.97 | 3 | 3.25x1.87 | 3.25x1.87 | abcdfg | Own | 1¾ | 1230* | 23½ | 42⅛ | 40⅛ | 1 | 62 |
| 30 | E | Dm | HG | Al | 33 | .875x2.95 | 4 | DFS | 6⅛ | 41 | C1046 | ..... | 2.38x1.16 | 4 | 2.75x1.38 | 2.75x1.95 | abcdfg | Car | 1¼ | 607 | 22⅛ | 36⅛ | 46⅛ | ..... | 63 |
| 30 | E | Dm | HG | Al | 31 | .875x2.95 | 4 | DFS | 6⅛ | 41 | C1046 | ..... | 2.38x1.16 | 4 | 2.75x1.38 | 2.75x1.95 | abcdfg | Car | 1¼ | 607 | 22⅛ | 36⅛ | 46⅛ | ..... | 64 |
| 45 | E | Dm | HG | Al | 31 | .919x2.95 | 4 | DFS | 6⅛ | 43 | C1046 | ..... | 2.12x1.41 | 4 | 2.70x1.12 | 2.70x1.23 | abcdfg | Car | 1¼ | 781 | 28⅛ | 40⅛ | 47⅛ | ..... | 65 |
| (n) | E | Dm | HG | Al | ..... | 1.11x3.80 | 4 | DFS | 9 | 61 | C1046 | ..... | 2.75x1.38 | 7 | 3.25x1.34 | 3.25x1.84 | abcdfg | Hol | 1¼ | 937 | 29¼ | 45⅛ | 47⅛ | 2 | 66 |
| (n) | E | Dm | HG | Al | ..... | 1.11x3.80 | 4 | DFS | 9 | 61 | C1046 | ..... | 2.75x1.38 | 7 | 3.25x1.34 | 3.25x1.84 | abcdfg | Hol | 1¼ | 942 | 29¼ | 45⅛ | 47⅛ | 2 | 67 |
| (n) | E | Dm | HG | Al | ..... | 1.11x3.80 | 4 | DFS | 9 | 61 | C1046 | ..... | 2.75x1.38 | 7 | 3.25x1.34 | 3.25x1.84 | abcdfg | Hol | 1¼ | 948 | 29¼ | 45⅛ | 47⅛ | 2 | 68 |
| 45 | Bo | AIB | SG | Al | 38.4 | 1.00x4.33 | 4 | 4140 | 6½ | 34.4 | 4340 | ..... | 2.37x1.31 | 3 | 2.75x2.00 | 2.75x1.75 | acdg | Zen | 1½ | 330 | 32½ | 26.0 | 27.0 | 3 | 69 |
| 45 | Bo | AIB | SG | Al | 38.4 | 1.00x4.33 | 4 | 4140 | 6½ | 34.4 | 4340 | ..... | 2.37x1.31 | 4 | 2.75x2.00 | 2.75x1.75 | acdg | Zen | 1½ | 425 | 32½ | 26.0 | 33.8 | 3 | 70 |
| 30 | N | ..... | HG | CI | 19 | .687x2.18 | 3 | CS | 8½ | 15 | CS | N | 1.50x1.00 | 3 | 2.00x1.37 | 2.00x1.31 | acdr | Str | ⅝ | 300* | 18½ | 17⅝ | 29⅛ | ..... | 71 |
| 45 | N | ..... | Ch | Al | 12 | .812x2.78 | 3 | MS | 9½ | 34 | 1040 | Y | 1.93x1.31 | 3 | 2.33x1.78 | 2.33x1.92 | acdr | Str | 1¼ | 495 | 21⅝ | 24½ | 38 | ..... | 72 |
| 45 | N | ..... | Ch | Al | 12 | .812x2.78 | 3 | MS | 9½ | 34 | 1040 | Y | 1.93x1.31 | 3 | 2.33x1.78 | 2.33x1.92 | acdr | Str | 1¼ | 495 | 21¾ | 24½ | 38 | ..... | 73 |
| 30 | N | ..... | HG | Al | 24 | .875x2.79 | 4 | CS | 7 | 26 | CS | N | 2.00x1.25 | 7 | 2.50x1.93 | 2.50x1.57 | acdr | Str | 1¼ | 620* | 24⅛ | 24⅛ | 24½ | ..... | 74 |
| 30 | N | ..... | HG | Al | 40 | 1.00x3.51 | 4 | CS | 8 | 38 | CS | N | 2.00x1.50 | 7 | 2.50x2.12 | 2.50x1.37 | acdr | Str | 1¾ | 928* | 21½ | 27⅝ | 32½ | ..... | 75 |
| 30 | N | ..... | HG | Al | ..... | 1.12x3.62 | 4 | CS | 9 | 51 | CS | Y | 2.25x1.12 | 7 | 2.65x2.75 | 2.68x1.75 | acdr | Str | 2 | 1125* | 24⅛ | 29½ | 36⅛ | ..... | 76 |
| 45 | N | ..... | HG | Ala | 62 | 1.25x4.50 | 4 | DFS | 11 | 80 | CS | N | 2.25x2.23 | 7 | 2.50x3.91 | 2.50x2.62 | abcdgr | Str(2) | 1¾ | 1570* | 26¾ | 34⅛ | 60¼ | ..... | 77 |
| 45 | N | ..... | HG | Ala | 62 | 1.25x4.50 | 4 | CNS | 11 | 184 | CNS | ..... | 2.75x2.25 | 7 | 3.00x3.84 | 3.00x2.25 | acdefg | Zen(2) | 2 | 2450 | 27 | 40¼ | 77 | 4-2-0 | 78 |
| 45 | N | ..... | SB | Ala | 62 | 1.25x4.50 | 4 | CNS | 11 | 184 | CNS | Y | 2.75x2.25 | 7 | 3.00x3.84 | 3.00x2.25 | abcdgr | Str(4) | 2 | 2700* | 42½ | 43⅞ | 75⅛ | ..... | 79 |
| 47 | ..... | ..... | HG | CI | 160 | 1.37x4.62 | 4 | AS | 12½ | 96 | CNS | N | 1.87x2.75 | 4 | 2.25x5.00 | 2.25x4.00 | acg | Zen | 1¼ | 1400 | 25 | 22½ | 60⅛ | ..... | 80 |
| 47 | ..... | ..... | HG | CI | 179 | 1.37x5.00 | 4 | AS | 12½ | 96 | CNS | N | 1.87x2.75 | 4 | 2.25x5.00 | 2.25x4.00 | acg | Zen | 1¼ | 1450 | 25 | 22½ | 60½ | ..... | 81 |
| 30 | ..... | ..... | HG | Al | ..... | .750x2.81 | 3 | AS | 6½ | ..... | CNS | N | 1.87x2.75 | 4 | ..... | ..... | acg | Zen | 1 | 440 | 17½ | 14⅝ | 40½ | ..... | 82 |
| 30 | N | ..... | HG | Al | 40 | 1.00x3.50 | 4 | AS | 8 | 38 | CNS | ..... | 2.00x1.50 | 5 | 2.50x1.31 | 2.50x2.12 | acdg | Zen | 1¼ | 795 | 20 | 26⅛ | 38¼ | ..... | 83 |
| 45 | ..... | ..... | HG | Cl | 160 | 1.37x4.62 | 4 | AS | 12½ | 96 | CNS | N | 2.00x1.50 | 3 | 2.00x2.18 | 2.00x2.62 | acg | Zen | 1½ | 1700 | 25¼ | 22⅜ | 60⅛ | ..... | 84 |
| 45 | ..... | ..... | HG | Cl | 179 | 1.37x5.00 | 4 | AS | 12½ | 96 | CNS | N | 1.87x2.75 | 5 | 2.25x5.00 | 2.25x4.00 | acg | Zen | 1½ | 1750 | 25¼ | 22⅜ | 60½ | ..... | 85 |
| 45 | E | Spec | HG | Cl | 186 | 1.50x5.00 | 4 | AS | 13½ | 172 | CNS | N | 1.87x2.75 | 5 | 2.25x5.00 | 2.25x4.00 | acg | Zen | ..... | 2100 | 29½ | 24 | 74⅛ | ..... | 86 |
| 45 | E | Spec | HG | Cl | 204 | 1.50x5.50 | 4 | AS | 13½ | 172 | CNS | N | 2.75x2.75 | 5 | 3.00x3.50 | 3.00x2.50 | acdg | Zen | ..... | 2290 | 29½ | 24 | 75 | ..... | 87 |

For abbreviations, see pages 164 and 165

***For Directory of the Manufacturers listed above, see page 190.***

# AUTOMOTIVE GASOLINE

| Line Number | Engine Make and Model | Designed for | Number of Cylinders, Bore and Stroke (In.) | Maximum Brake Hp. at Specified R.P.M. | | Piston Displacement (Cu. In.) | Compression Ratio | Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories | Cylinder Liners—Type | Crankcase—Upper Half Integral with Cylinders | Valves | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | With Bare Engine | With Standard Accessories | | | | | | Arrangement | Exhaust Head Material (S.A.E. No.) | Max. Head Diameter (In.) | | Min. Port Diameter (In.) | | Lift (In.) | | Stem Diameter (In.) | |
| | | | | | | | | | | | | | Intake | Exhaust | Intake | Exhaust | Intake | Exhaust | Intake | Exhaust |
| | Lathrop—Cont'd | | | | | | | | | | | | | | | | | | | |
| 1 | LH | M | 6-3¾x4½ | ..... | 62-2200 | 292.0 | ..... | 173- 550 (EA) | N | In | L | CNS | ..... | ..... | 1.50 | 1.37 | .312 | .312 | .375 | .375 |
| 2 | De Luxe LH-D8 | M | 6-4x4¼ | ..... | 107-2500 | 320.0 | ..... | 228-2500 (EA) | N | In | L | CNS | 1.78 | 1.62 | 1.50 | 1.37 | .356 | .356 | .375 | .375 |
| 3 | LH-Super | M | 6-4x4½ | ..... | 132-3200 | 339.0 | ..... | 132-3200 (EA) | N | In | L | CNS | 1.78 | 1.62 | 1.50 | 1.37 | .375 | .375 | .375 | .375 |
| 4 | Mystic | M | 6-4½x3½ | ..... | 96-1600 | 524.8 | ..... | 321-1350 (EA) | N | Se | L | CNS | 2.25 | 2.25 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 5 | Mystic | M | 6-4⅝x3½ | ..... | 106-1600 | 584.7 | ..... | 379- 900 (EA) | N | Se | L | CNS | 2.25 | 2.25 | 2.00 | 2.00 | .375 | .375 | .437 | .437 |
| 6 | Mystic | M | 6-5⅛x6½ | ..... | 155-1500 | 926.5 | ..... | 561-1200 (EA) | N | Se | L | CNS | 2.68 | 2.68 | 2.31 | 2.31 | .437 | .437 | .500 | .500 |
| 7 | Mystic | M | 6-5⅝x6½ | ..... | 179-1600 | 1012.8 | ..... | 640-1100 (EA) | N | Se | L | CNS | 2.68 | 2.68 | 2.31 | 2.31 | .437 | .437 | .500 | .500 |
| 8 | Engineers | M | 6-8x7 | ..... | 118-1000 | 1187.5 | ..... | 650- 925 (EA) | N | Se | L | CNS | 2.68 | 2.50 | 2.31 | 2.12 | .375 | .375 | .500 | .500 |
| 9 | Le Roi A288 | Ind | 1-7¼x7 | 26.3- 720 | 288.9 | 5.80 | 195- 800 (EA) | W | In | I | Sil | 3.34 | 2.81 | 2.00 | 2.62 | .530 | .530 | .622 | .621 |
| 10 | B45 | Ind | 2-2¾x3½ | 11.3-2200 | 10.4-2200 | 45.4 | 5.80 | 29-1400 (EA) | N | In | L | Sil | 1.43 | 1.43 | 1.06 | 1.06 | .187 | .187 | .312 | .313 |
| 11 | D91 | Ind,Tr | 4-2¾x3½ | 22.8-2200 | 22.0-2200 | 90.8 | 5.80 | 60-1500 (EA) | N | In | L | Sil | 1.43 | 1.43 | 1.06 | 1.06 | .188 | .188 | .312 | .313 |
| 12 | D140 | Ind,Tr | 4-3½x3⅝ | 37-2400 | 33.5-2400 | 140.0 | 5.85 | 94-1300 (EA) | W | In | I | CNS | 1.37 | 1.28 | 1.18 | 1.18 | .375 | .375 | .343 | .342 |
| 13 | D176 | Ind,Tr | 4-3¾x4 | 42.0-2000 | 40-2000 | 176.0 | 5.43 | 121-1200 (EA) | W | In | I | CNS | 1.68 | 1.50 | 1.37 | 1.25 | .373 | .373 | .372 | .372 |
| 14 | D201 | Ind,Tr | 4-4x4 | 47.5-2000 | 45.5-2000 | 201.0 | 5.43 | 140-1200 (EA) | W | In | I | CNS | 1.68 | 1.50 | 1.37 | 1.25 | .373 | .373 | .372 | .372 |
| 15 | D226 | Ind,Tr | 4-4x4½ | 54-2000 | 52-2000 | 226.0 | 5.09 | 166-1200 (EA) | W | In | I | CNS | 1.68 | 1.50 | 1.37 | 1.25 | .373 | .373 | .372 | .372 |
| 16 | D471 | Ind,Tr | 4-5x6 | 79.5-1400 | 75-1400 | 471.0 | 5.15 | 329- 900 (EA) | W | In | I | CNS | 1.87 | 1.81 | 1.75 | 1.62 | .470 | .470 | .433 | .433 |
| 17 | D1000 | Ind | 6-4⅝x7 | 145-1200 | 138-1200 | 1002.0 | 4.56 | 690- 850 (EA) | N | Se | I | Sil | 2.81 | 2.81 | 2.12 | 2.50 | .625 | .625 | .624 | .624 |
| 18 | F1500 | Ind | 6-5⅛x7 | 215-1200 | 205-1200 | 1503.0 | 4.50 | 1035- 650 (EA) | N | Se | I | Sil | 2.81 | 2.81 | 2.12 | 2.50 | .625 | .625 | .624 | .624 |
| 19 | H540 | Tr,Ind | V8-4½x4¼ | 170-2400 | 155-2400 | 540.0 | 5.60 | 421- 900 (EA) | W | In | I | Sil | 1.94 | 1.50 | 1.62 | 1.37 | .410 | .410 | .373 | .372 |
| 20 | H540 | T,B | V8-4½x4¼ | 206-3000 | | 540.0 | 6.70 | 450-1800 (EA) | W | In | I | Sil | 1.94 | 1.50 | 1.62 | 1.37 | 4 0 | 4 0 | 3/3 | 3/2 |
| 21 | H2000 | Ind | V8-6½x7 | 290-1200 | 270-1200 | 2004.0 | 4.50 | 1375- 650 (EA) | N | Se | I | Sil | 2.81 | 2.81 | 2.12 | 2.50 | .625 | .625 | .624 | .624 |
| 22 | L3000 | Ind | V12-6½x7 | 435-1200 | 4 0-1200 | 3008.0 | 4.50 | 2070- 650 (EA) | N | Se | I | Sil | 2.81 | 2.81 | 2.12 | 2.50 | .625 | .625 | .624 | .624 |
| 23 | L3460 | Ind | V12-7¼x7 | 595-1350 | 586-1350 | 3460.0 | 4.57 | 2530- 900 (EA) | W | In | I | Sil | 3.34 | 2.81 | 2.75 | 2.62 | .625 | .625 | .622 | .621 |
| 24 | Lycoming O-290-G | Ind | 4-4⅞x3⅞ | 95-2200 | 89.0 | 6.80 | 235-1800 (EA) | AF | Se | ... | Aus | 2.00 | 1.76 | 1.70 | 1.55 | .402 | .402 | .402 | .402 |
| 25 | Mack EN291 | T | 6-3⅝x4⅝ | 112-3200 | 105-3200 | 290.0 | 6.90 | 225-1400 (EA) | N | In | L | CNS | 2.01 | 1.53 | 1.75 | 1.38 | 430 | 430 | 438 | 433 |
| 26 | EN331 | T | 6-4x4⅝ | 130-3200 | 121-3200 | 330.0 | 6.90 | 256-1400 (EA) | N | In | L | CNS | 2.01 | 1.53 | 1.75 | 1.38 | .430 | .430 | .435 | .433 |
| 27 | EN377 | T | 6-4x5 | 147-3200 | 132-3200 | 377.0 | 6.90 | 283-1400 (EA) | N | In | L | CNS | 2.01 | 1.53 | 1.75 | 1.38 | .430 | .430 | .435 | .433 |
| 28 | EN431A | T | 6-4½x5⅝ | 147-2800 | 129-2800 | 431.0 | 6.32 | 326-1400 (EA) | N | In | I | xCHS | 2.04 | 1.75 | 1.81 | 1.56 | .461 | .458 | .435 | .433 |
| 29 | EN510A | T | 6-4½x5½ | 161-2800 | 143-2800 | 510.0 | 6.07 | 383-1000 (EA) | N | In | I | xCHS | 2.04 | 1.75 | 1.81 | 1.56 | .461 | .458 | .435 | .433 |
| 30 | EN510A | B | 6-4½x5½ | 161-2800 | 142-2800 | 510.0 | 6.07 | 366-1000 (EA) | N | In | I | CHS | 2.04 | 1.75 | 1.81 | 1.56 | .461 | .458 | .435 | .433 |
| 31 | ENF5 0A | FA | 6-4½x5½ | 161-2550 | 150-2550 | 510.0 | 6.34 | 398-1200 (EA) | N | In | I | xCHS | 2.04 | 1.75 | 1.81 | 1.56 | .461 | .458 | .435 | .433 |
| 32 | EN707A | T | 6-5x6 | 210-2500 | 193-2500 | 707.0 | 6.10 | 544-1100 (EA) | N | In | I | xCHS | 2.27 | 1.90 | 2.06 | 1.75 | .500 | .500 | .499 | .496 |
| 33 | ENF707A | FA | 6-5x6 | 213-2500 | 203-2500 | 707.0 | 6.42 | 569-1200 (EA) | N | In | ... | xCHS | 2.27 | 1.90 | 2.06 | 1.75 | .314 | .314 | .493 | .493 |
| 34 | Minneapolis-Moline 185-4 | Ind,Tr | 4-3⅝x4 | 27-1500 | 26-1500 | 165.1 | 5.75 | 105-1000 (BE) | N | Se | Hh | | 1.48 | 1.48 | 1.25 | 1.25 | .355 | .355 | .341 | .341 |
| 35 | 206A-4 | Ind,Tr | 4-3⅝x5 | 40-1500 | 38-1500 | 206.5 | 6.15 | 152 1100 (BE) | N | Se | Hh | | 1.48 | 1.48 | 1.25 | 1.25 | .355 | .355 | .341 | .341 |
| 36 | 283-4 | Ind,Tr | 4-4¼x5 | 51-1300 | 48-1300 | 283.7 | 5.40 | 210-1100 (BE) | N | Se | I | | 1.72 | 1.59 | 1.50 | 1.37 | .490 | .490 | .434 | .434 |
| 37 | 403-4 | Ind,Tr | 4-4⅝x6 | 67-1200 | 64-1200 | 403.2 | 5.40 | 304-1100 (BE) | N | Se | I | | 1.84 | 1.72 | 1.62 | 1.50 | .490 | .490 | .434 | .434 |
| 38 | 425-6 | Ind | 6-4¼x5 | 84- 400 | 76- 400 | 425.5 | 5.40 | 318- 900 (BE) | N | Se | I | | 1.72 | 1.59 | 1.50 | 1.37 | .490 | .490 | .434 | .434 |
| 39 | 605-6 | Ind | 6-4⅝x6 | 104-1300 | 98-1300 | 605.0 | 5.40 | 446- 800 (BE) | N | Se | I | | 1.84 | 1.72 | 1.62 | 1.50 | .490 | .490 | .434 | .433 |
| 40 | 1210-12A | Ind | 12-4⅝x6 | 210-1300 | 198-1300 | 1210.0 | 5.40 | 870- 900 (BE) | N | Se | I | | 1.84 | 1.72 | 1.62 | 1.50 | .490 | .490 | .434 | .434 |
| 41 | Norberg Bluefin 230 | M | 6-3½x4½ | ..... | 80-2500 | 230.0 | 6.80 | 154-1600 | N | In | L | | 1.61 | 1.39 | | | .311 | .311 | .310 | .310 |
| 42 | Arrow 230 | M | 6-3½x4½ | ..... | 95-3200 | 230.0 | 6.80 | 178-2000 | N | In | L | | 1.61 | 1.39 | | | .311 | .311 | .310 | .310 |
| 43 | Marlin 320 | M | 6-4x4½ | ..... | 110-2500 | 320.0 | 6.50 | 243-1600 | N | In | L | | 1.75 | 1.62 | | | .356 | .356 | .372 | .372 |
| 44 | Knight 340 | M | 6-4x4½ | ..... | 145-3200 | 340.0 | 7.20 | 268-2200 | N | In | L | Aus | 1.63 | 1.69 | | | .356 | .356 | .372 | .372 |
| 45 | Oliver 66HC | Tr | 4-3½x3⅝ | 27.6-1600 | 129.3 | 6.75 | | | W | In | I | Sil | 1.31 | 1.12 | 1.18 | .996 | .312 | .281 | .372 | .371 |
| 46 | 90 | Tr | 4-4⅛x5½ | 56.7-1125 | 443.0 | 4.10 | 250- 850 (EA) | W | In | I | Sil | 2.31 | 2.31 | 2.00 | 2.00 | .437 | .437 | .437 | .437 |
| 47 | 99 | Tr | 4-4⅝x6½ | 68.9-1125 | 443.0 | 5.04 | 295- 850 (EA) | W | In | I | Sil | 2.31 | 2.00 | 2.00 | 1.75 | .437 | .437 | .437 | .437 |
| 48 | 77HC | Tr | 6-3½x3⅝ | 40.4-1600 | 193.9 | 6.75 | | W | In | I | Sil | 1.31 | 1.12 | 1.18 | .996 | .312 | .281 | .372 | .371 |
| 49 | 88HC | Tr | 6-3½x4 | 48.6-1600 | 231.0 | 6.75 | | W | In | I | Sil | 1.40 | 1.28 | 1.25 | 1.12 | .399 | .382 | .372 | .371 |
| 50 | Packard 1M-245 | M | 6-3¼x4¼ | ..... | 100-3200 | 245.0 | 7.00 | 185-1800 (EA) | N | In | L | Aus | 1.67 | 1.43 | 1.56 | 1.31 | .318 | .318 | .342 | .340 |
| 51 | 1M-356 | M | 6-3½x4½ | ..... | 150-3200 | 356.0 | 7.00 | 265-2200 (EA) | N | In | L | Aus | 1.67 | 1.43 | 1.56 | 1.31 | .340 | .340 | .342 | .340 |
| 52 | Reo GC-245 | T,B | 6-3½x4¼ | 89-3100 | | 245.0 | 6.20 | 191-1200 (BE) | N | In | L | 2112 | 1.78 | 1.62 | | | .312 | .312 | .373 | .371 |
| 53 | GC-288 | T,B | 6-3½x5 | 96-3000 | | 288.0 | 6.20 | 225-1200 (BE) | N | In | L | 2112 | 1.78 | 1.62 | | | .312 | .312 | .373 | .371 |
| 54 | GC-310 | T,B | 6-3⅝x5 | 101-3000 | | 310.0 | 6.20 | 243-1000 (BE) | N | In | L | 2112 | 1.78 | 1.62 | | | .312 | .312 | .373 | .371 |
| 55 | OA | T,B | 6-4¼x4½ | 140-3200 | 128-3200 | 331.0 | 6.40 | 260-1200 (EA) | W | In | I | (x)Sil | 2.01 | 1.80 | | | .420 | .420 | .435 | .434 |
| 56 | OA | T,B | 6-3⅞x4½ | 124-3300 | 110.53300 | 292.0 | 6.56 | 219-1400 (EA) | W | In | I | (x)Sil | 2.01 | 1.80 | | | .420 | .420 | .435 | .434 |
| 57 | OA-255 | T,B | 6-3⅝x4½ | 107-3400 | 93-3400 | 255.0 | 6.70 | 183-1200 (EA) | W | In | I | 2112 | 2.01 | 1.80 | 1.83 | 1.62 | .420 | .420 | .435 | .434 |
| 58 | Scripps 38 | M | 4-3¼x4 | ..... | 50-3200 | 134.0 | 5.50 | 100-2000 (EA) | | In | L | Sil | 1.48 | 1.35 | 1.25 | 1.12 | .250 | .250 | .310 | 3/0 |
| 59 | 96-97 | M | 6-3½x4½ | ..... | 95-3000 | 230.0 | 7.20 | 187-1200 (EA) | | In | L | Sil | 1.60 | 1.39 | 1.50 | 1.25 | .311 | .311 | .310 | .310 |
| 60 | 6-110 | M | 6-3½x4¼ | ..... | 110-3600 | 236.0 | 6.50 | 195-2400 (EA) | N | In | L | Aus | 1.61 | 1.39 | 1.53 | 1.25 | .311 | .311 | .310 | .310 |
| 61 | 104-105 | M | 6-4x4¼ | ..... | 110-3000 | 320.0 | 5.63 | 239-1700 (EA) | | In | L | Sil | 1.75 | 1.62 | 1.50 | 1.37 | .359 | .359 | .373 | .373 |
| 62 | 6-339 | M | 6-4x4½ | ..... | 140-3200 | 339.0 | 6.80 | 265-2000 (EA) | | In | L | Sil | 1.83 | 1.67 | 1.72 | 1.50 | .356 | .356 | .373 | .373 |
| 63 | 152-153 | M | 6-4½x5¼ | ..... | 165-3000 | 447.0 | 7.10 | 390-1600 (EA) | | Se | L | Sil | 2.37 | 2.25 | | | .375 | .375 | .437 | .437 |
| 64 | 154, 5, 6, 7 | M | 6-4½x5¼ | ..... | 155-3000 | 447.0 | 6.20 | 330-1600 (EA) | | Se | L | Sil | 2.25 | 2.25 | | | .375 | .375 | .437 | .437 |
| 65 | 168-169 | M | 6-4½x5¾ | ..... | 175-2400 | 549.0 | 5.75 | 410-1600 (EA) | | Se | L | Sil | 2.37 | 2.28 | | | .406 | .375 | .437 | .437 |
| 66 | 178-179 | M | 6-4¾x5¾ | ..... | 200-2400 | 611.0 | 5.75 | 500-1600 (EA) | | Se | L | Sil | 2.37 | 2.28 | | | .406 | .375 | .437 | .437 |
| 67 | 208-209 | M | 6-5x5¾ | ..... | 225-2400 | 678.0 | 6.25 | 540- 800 (EA) | | Se | L | Sil | 2.50 | 2.37 | | | .406 | .375 | .437 | .437 |
| 68 | V-8 | M | 8-3.10x3¾ | ..... | 100-3600 | 239.0 | 6.80 | 178-2200 (EA) | | In | L | CNS | 1.53 | 1.53 | 1.34 | 1.34 | .292 | .292 | 34 | 341 |
| 69 | 302-303 | M | 12-4¼x5½ | ..... | 350-2600 | 884.0 | 7.10 | 790-1600 (EA) | | Se | L | Sil | 2.37 | 2.25 | | | .375 | .375 | .437 | .437 |
| 70 | 304-305 | M | 12-4¼x5½ | ..... | 250-2400 | 884.0 | 6.20 | 640-1700 (EA) | | Se | L | Sil | 2.25 | 2.25 | | | .375 | .375 | .437 | .437 |
| 71 | 306-307 | M | 12-4¼x5¾ | ..... | 280-2600 | 894.0 | 6.20 | 660-1800 (EA) | | Se | L | Sil | 2.25 | 2.25 | | | .375 | .375 | .437 | .437 |
| 72 | Sterling Viking II-TC-6 | Tr,Ind | 6-6x9 | ..... | 450-1200 | 2714.0 | ▲ | 2015- 900 (EA) | W | Se | I | Sil | 2.59 | 2.59 | | | .556 | .556 | .557 | .557 |
| 73 | Viking II-TC-6 | Tr,Ind | 6-6x9 | ..... | 345- 900 | 2714.0 | ▲ | 2015- 900 (EA) | W | Se | I | Sil | 2.59 | 2.59 | | | .556 | .556 | .557 | .557 |
| 74 | Viking II-T-6 | M | 6-6x9 | ..... | 600-1200 | 3619.0 | 5.20 | 2685- 900 (EA) | W | Se | I | Sil | 2.59 | 2.59 | | | .556 | .556 | .557 | .557 |
| 75 | Viking II-TC-8 | Tr,Ind | 8-6x9 | ..... | 600-1200 | 3619.0 | ▲ | 2685- 900 (EA) | W | Se | I | Sil | 2.59 | 2.59 | | | .556 | .556 | .557 | .557 |
| 76 | Viking II-TC-8 | Tr,Ind | 8-6x9 | ..... | 460- 900 | 3619.0 | ▲ | 2685- 900 (EA) | W | Se | I | Sil | 2.59 | 2.59 | | | .556 | .556 | .557 | .557 |
| 77 | Petrel-LC-6 | Ind | 6-5½x6 | ..... | 210-2000 | 780.0 | 6.00 | 550-1700 (EA) | N | Se | L | Sil | 2.25 | 2.25 | | | .475 | .475 | .437 | .437 |
| 78 | Petrel-L-6 | M | 6-5½x6 | ..... | 250-2500 | 780.0 | 6.00 | 550-1700 (EA) | N | Se | L | Sil | 2.25 | 2.25 | | | .475 | .475 | .437 | .437 |
| 79 | Thorobred KK | M | 2-3¾x4¾ | 11-1100 | 10-1100 | 105.0 | 4.00 | 84- 800 (EA) | N | Se | L | NCI | 1.62 | 1.62 | 1.43 | 1.43 | .300 | .300 | .375 | .375 |
| 80 | Meteor CK | M | 4-2½x3½ | 18-2600 | 16-2600 | 61.3 | 5.70 | 40-1700 (BE) | N | Se | L | Sil | 1.12 | .937 | 1.00 | .812 | .228 | .250 | .312 | .312 |
| 81 | DS | M | 4-2¾x4 | 19-1800 | 16-1800 | 95.0 | 4.66 | 53-1300 (EA) | N | In | L | Sil | 1.46 | 1.34 | 1.31 | 1.18 | .250 | .250 | .312 | .312 |
| 82 | Arrowhead, Jr. | M | 4-3¼x4 | 38-2600 | 35-2600 | 133.0 | 5.58 | 92-1200 (EA) | N | In | L | Sil | 1.34 | 1.34 | 1.18 | 1.18 | .281 | .281 | .312 | .312 |

For abbreviations, see pages 164 and 165

**For Directory of the Manufacturers listed above, see page 190.**

# ENGINES—*Continued*

| VALVES | | | | PISTONS | | | | CONNECTING RODS | | | | CRANKSHAFT | | | | | | | | | | CARBURETOR | | | OVERALL DIMENSIONS (In.) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Seats | | | | | | | | | | | | | | Crank-Pin | MAIN BEARINGS | | | | | | | | | | | | | |
| Angle (Deg.) | Inserts Used? | Insert Material (S.A.E. No.) | Camshaft Drive—Type | Material | Weight with Pins, Rings, Bushings (Oz.) | Piston Pin—Diameter and Length (In.) | Number of Rings per Piston | Material | Center to Center Length (In.) | Weight with Bushing and Cap (Oz.) | Material | Counter Balance Used | Diameter and Length (In.) | Number | Diameter and Length (In.) Front | Diameter and Length (In.) Rear | Oil Pressure to— | Make | Size | Engine Weight without Carburetor or Ignition (Lb.) | Width | Height | Length | Clutch Housing (S.A.E. Nos.) | Line Number |
| 30 | ..... | ..... | HG | Al | ..... | 1.00x3.50 | 3 | AS | 8 | ..... | CNS | N | 2.75x2.75 | 5 | 3.00x3.50 | 3.00x3.50 | acdg | Zen | 1½ | 830 | 21½ | 17 | 51 | ..... | 1 |
| 30 | E | Spec | HG | Al | 40 | 1.00x3.50 | 4 | DFS | 8 | 36 | Spec | N | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | acg | Zen | 1½ | 620 | 21½ | 25 | 51 | ..... | 2 |
| 30 | ..... | ..... | HG | Al | 98 | 1.37x3.87 | 4 | Dur | 9 | 38 | CNS | ..... | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | abcdeg | Zen | 1¾ | 640 | 21½ | 25 | 47 | ..... | 3 |
| 45 | ..... | ..... | HG | Cl | 96 | 1.37x3.87 | 4 | Dur | 12½ | 68 | CNS | N | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x1.12 | acg | Hol | ..... | 1700 | 24½ | 27¾ | 68 | ..... | 4 |
| 45 | ..... | ..... | HG | Cl | 104 | 1.37x4.12 | 4 | Dur | 12½ | 68 | CNS | N | 2.25x2.37 | 7 | 2.75x3.25 | 2.75x2.12 | acdg | Hol | ..... | 1700 | 24½ | 27¾ | 68 | ..... | 5 |
| 45 | ..... | ..... | HG | Cl | 176 | 1.50x5.00 | 4 | AS | 13½ | 164 | CNS | N | 2.12x2.75 | 7 | 2.62x5.00 | 2.62x4.00 | acg | Hol | ..... | 2435 | 24½ | 29½ | 78½ | ..... | 6 |
| 45 | ..... | ..... | HG | Cl | 176 | 1.50x5.12 | 4 | AS | 13½ | 164 | CNS | N | 2.75x2.75 | 7 | 3.00x3.37 | 3.00x3.25 | acdg | Hol | ..... | 2460 | 24½ | 29½ | 78½ | ..... | 7 |
| 45 | E | Spec | HG | Cl | 204 | 1.50x..... | 4 | AS | 13¼ | 172 | CNS | N | 2.75x2.75 | 7 | 3.00x3.50 | 3.00x3.50 | abcdg | Zen(2) | 1¾ | 2950 | 31½ | 24 | 92 | ..... | 8 |
| 45 | E | T-12 | HG | Al | 255 | 2.25x6.12 | 4 | 1040 | 15 | 336 | 1040 | Y | 5.00x2.15 | 2 | 5.00x2.15 | 5.00x2.15 | abcdf | Own | 1¾ | 2275 | 57½ | 49 | 40¼ | 3 | 9 |
| 45 | N | ..... | HG | Al | 11½ | .750x2.46 | 3 | 1040 | 9½ | 24 | ACI | Y | 1.93x1.37 | 2 | 310 (9) | 310 (9) | PS | Zen | ¾ | 250 | 16½ | 19½ | 17 | 4 | 10 |
| 45 | N | ..... | HG | Al | 11½ | .750x2.46 | 3 | 1040 | 9½ | 24 | 1040 | Y | 1.93x1.37 | 2 | 310 (9) | 310 (9) | PS | Zen | ¾ | 350 | 16½ | 19½ | 24 | 4 | 11 |
| 45 | E | T-12 | HG | Al | 48 | 1.00x2.93 | 3 | 1040 | 7½ | 33 | 1045 | Y | 2.31x1.08 | 3 | 2.50x1.43 | 2.50x1.43 | acdf | Zen | ¾ | 550 | 18¾ | 31½ | 33 | 4, 5 | 12 |
| 45 | E | T-12 | HG | ACI | 54 | 1.00x3.31 | 4 | 1045 | 7½ | 60 | 1045 | Y | 2.37x1.50 | 3 | 2.43x1.62 | 2.46x1.75 | acdf | Zen | 1 | 580 | 20 | 30 | 35½ | 4 | 13 |
| 45 | E | T-12 | HG | Al | 34 | 1.00x3.43 | 4 | 1045 | 7½ | 60 | 1045 | Y | 2.37x1.50 | 3 | 2.43x1.62 | 2.46x1.75 | acdf | Zen | 1 | 590 | 20 | 31 | 35½ | 4, 2 | 14 |
| 45 | E | T-12 | HG | Al | 34 | 1.00x3.43 | 4 | 1045 | 8 | 60 | 1045 | Y | 2.37x1.50 | 3 | 2.43x1.62 | 2.61x1.75 | acdf | Zen | 1 | 580 | 20 | 30 | 35½ | 4, 2 | 15 |
| 45 | E | T-12 | HG | Al | ..... | 1.50x4.31 | 4 | 1040 | 12 | 236 | 1045 | Y | 2.87x2.37 | 3 | 3.00x3.12 | 3.00x4.12 | acdf | Zen | 1¼ | 1645 | 23 | 43½ | 45½ | ..... | 16 |
| 45 | E | T-12 | HG | Al | 200 | 1.75x6.12 | 4 | 1045 | 14 | 236 | 1045 | N | 3.50x3.75 | 3 | 3.93x5.25 | 3.93x5.25 | acdf | Zen | 1¼ | 2500 | 34 | 99 | 62 | 00, 0 | 17 |
| 45 | E | T-12 | HG | Al | 200 | 1.75x6.12 | 4 | 1045 | 14 | 236 | 4140 | N | 3.50x3.75 | 4 | 3.93x5.25 | 3.93x5.25 | acdf | Zen(2) | 1½ | 3750 | 34 | 99 | 86 | 00, 0 | 18 |
| 45 | E | T-12 | HG | Al | 62 | 1.25x3.93 | 4 | 1040 | 8½ | 52 | 4140 | Y | 2.75x1.25 | 5 | 3.25x1.12 | 3.25x1.12 | acdf | Zen(2) | 1¼ | 1300 | 30½ | 39¼ | 37 | 1, 2 | 19 |
| 45 | E | T-12 | HG | Al | 62 | 1.25x3.93 | 4 | 1040 | 8½ | 52 | 4140 | Y | 2.75x1.25 | 5 | 3.25x1.12 | 3.25x1.12 | acdf | Zen | 2 | 1355 | 30½ | 43 | 44½ | 2 | 20 |
| 45 | E | T-12 | HG | Al | 200 | 1.75x6.12 | 4 | 3140 | 15 | •• | 1045 | N | 3.50x3.75 | 3 | 3.93x5.25 | 3.93x5.25 | acdf | Zen(2) | 2 | 3900 | 45 | 65 | 64 | 00 | 21 |
| 45 | E | T-12 | HG | Al | 200 | 1.75x6.12 | 4 | 3140 | 15 | •• | 4140 | N | 3.50x3.75 | 4 | 3.93x5.25 | 3.93x5.25 | acdf | Zen(4) | 1¾ | 5300 | 45 | 65 | 78 | 00 | 22 |
| 45 | E | T-12 | HG | Al | 256 | 2.25x6.37 | 4 | 1040 | 15 | 336 | 4140 | Y | 5.00x2.18 | 6 | 5.50x2.37 | 5.50x4.31 | abcdf | Zen(4) | 2 | 10300 | 49 | 75 | 98½ | 00 | 23 |
| (h) | Bo | Aus | BG | Alt | 51 | 1.12x4.44 | 4 | 6322 | 6½ | 32 | 6415 | N | 2.12x1.44 | 3 | 2.38x5.11 | 2.38x1.60 | acde | MaS | 1⅛ | 306 | 32..24 | 26..07 | 39..06 | ..... | 24 |
| (h) | E | Nif | HG | Al | 45.5 | 1.12x3.18 | 5 | 4130 | 10½ | 60.5 | 1046 | .... | 2.38x1.62 | 7 | 3.00x1.41 | 3.00x2.12 | acdefg | Zen | 1¼ | 910 | 28½ | 35½ | 44½ | 3 | 25 |
| (h) | E | Nif | HG | Al | 52 | 1.12x3.45 | 5 | 4130 | 10½ | 60.5 | 1046 | .... | 2.38x1.62 | 7 | 3.00x1.41 | 3.00x2.12 | acdefg | Zen | 1¼ | 920 | 28½ | 35½ | 44½ | 3 | 26 |
| (h) | E | Nif | HG | Al | 52 | 1.12x3.45 | 5 | 4130 | 10½ | 64 | 1046 | .... | 2.38x1.63 | 7 | 3.00x1.41 | 3.00x2.12 | acdefg | Zen | 1¼ | 1056 | 28½ | 36½ | 46½ | 3 | 27 |
| (h) | E | Nif | HG | Alt | 59 | 1.31x3.56 | 5 | 4130 | 10½ | 90^ | 1046 | .... | 2.75x1.72 | 7 | 3.50x1.68 | 3.50x2.21 | acdefg | Zen | 1¾ | 1525 | 27..00 | 44..16 | 49..87 | 2, 3 | 28 |
| (h) | E | Nif | HG | Alt | 68 | 1.31x3.90 | 5 | 4130 | 10½ | 90^ | 1046 | .... | 2.75x1.71 | 7 | 3.50x1.68 | 3.50x2.21 | acdefg | Zen | 1¾ | 1555 | 28..25 | 43..75 | 49..87 | 2 | 29 |
| (h) | E | Nif | HG | Alt | 68 | 1.31x3.90 | 5 | 4130 | 10½ | 90^ | 1046 | .... | 2.75x1.71 | 7 | 3.50x1.68 | 3.50x2.21 | acdefg | Zen | 1¾ | 1555 | 29..50 | 43..50 | 47..13 | 2 | 30 |
| (h) | E | Nif | HG | Alt | 68 | 1.31x3.90 | 5 | 4130 | 10½ | 90^ | 1046 | .... | 2.75x1.71 | 7 | 3.50x1.68 | 3.50x2.21 | acdefg | Zen | 1¾ | 1594 | 28..25 | 45..18 | 49..87 | 2 | 31 |
| (h) | E | Nif | HG | Alt | 89 | 1.43x4.43 | 5 | 4130 | 11¼ | 113^ | 1046 | .... | 3.00x1.90 | 7 | 4.00x1.57 | 4.00x2.25 | acdefg | Zen | 1½ | 1903 | 28..06 | 51..75 | 53 1/2 | 1 | 32 |
| (h) | E | Nif | HG | Alt | 89 | 1.43x4.43 | 5 | 4130 | 11¼ | 113^ | 1046 | .... | 3.00x1.90 | 7 | 4.00x1.57 | 4.00x2.25 | acdefg | Zen | 1½ | 1854 | 28..06 | 51..75 | 53 1/2 | 1 | 33 |
| 45 | E | ACI | HG | Cl | 56 | 1.00x3.00 | 4 | DFS | 9 | 54 | DFS | N | 2.62x1.28 | 2 | SAE212(7) | 3.00x2.18 | acegt | MaS | 1 | u600 | 25½ | 32½ | 37½ | 4 | 34 |
| 45 | E | ACI | HG | Cl | 54 | 1.00x3.00 | 4 | DFS | 8¾ | 45 | DFS | N | 2.62x1.28 | 3 | SAE212(7) | 3.00x2.18 | acegt | MaS | 1 | u670 | 25½ | 32½ | 37½ | 4 | 35 |
| 45 | E | ACI | HG | Cl | 85 | 1.25x3.87 | 4 | DFS | 10 | 90 | DFS | N | 2.57x2.22 | 3 | 2.91x2.18 | 2.91x3.50 | acdefgt | MaS | 1½ | u1150 | 25½ | 41½ | 45½ | 2 | 36 |
| 45 | E | ACI | HG | Cl | 101 | 1.25x4.12 | 4 | DFS | 11½ | 88 | DFS | N | 2.75x2.09 | 3 | 2.91x2.18 | 2.91x3.50 | acdefgt | MaS | 1¾ | u1250 | 25½ | 47½ | 45½ | 2 | 37 |
| 45 | E | ACI | HG | Cl | 85 | 1.25x3.87 | 4 | DFS | 10 | 90 | DFS | Y | 2.57x2.22 | 4 | 2.91x2.18 | 2.91x3.50 | acdefgt | Zen | 1½ | u1800 | 28½ | 49½ | 58½ | 2 | 38 |
| 45 | E | ACI | HG | Cl | 108 | 1.25x4.25 | 4 | DFS | 11¾ | 91 | DFS | Y | 2.75x2.09 | 4 | 2.91x2.18 | 2.91x3.50 | acdefgt | Zen | 1½ | u1900 | 28½ | 48½ | 58½ | 1 | 39 |
| 45 | E | ACI | HG | Cl | 108 | 1.25x4.25 | 4 | DFS | 11¾ | 91 | DFS | Y | 2.75x2.09 | 4 | 2.91x2.18 | 2.91x3.50 | acdefgt | Ens | 1½ | 6150 | 40¾ | 71½ | 111¾ | ..... | 40 |
| 30 | N | ..... | HG | Al | ..... | .875x2.90 | 4 | 1035 | 7 | ..... | 3140 | N | 2.00x1.25 | 7 | 2.50x1.31 | 2.50x1.93 | ar** | Zen | 1½ | 720 | 25 | 23½ | 45½ | Spec. | 41 |
| 30 | N | ..... | HG | Al | ..... | .875x2.90 | 4 | 1035 | 7 | ..... | 3140 | N | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x1.93 | ar** | Zen | 1½ | 750 | 25 | 23½ | 45½ | Spec. | 42 |
| 30 | N | ..... | HG | Al | ..... | 1.00x3.50 | 4 | 1040 | 8 | ..... | 3140 | N | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | ar** | Zen | 1½ | 860 | 25 | 25 | 49½ | Spec. | 43 |
| 30 | N | ..... | HG | Al | ..... | 1.12x3.44 | 4 | 1035 | 8 | ..... | 3140 | N | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | ar** | Str | 1¾ | 880 | 25 | 25 | 49½ | Spec. | 44 |
| 45 | N | CA | HG | Cl | 61¾ | 1.23x2.75 | 4 | 1045 | 6¾ | 31½ | 1045 | N | 2.00x1.37 | 3 | 2.25x1.75 | 2.25x1.62 | acdfg | MaS | 1 | 451 | 18 | 27½ | 30½ | ..... | 45 |
| 45 | E | CA | HG | Cl | 109 | 1.50x4.37 | 4 | 1040 | 12½ | 145 | 1045 | N | 2.75x2.50 | 3 | 3.00x2.81 | 3.00x3.75 | abcdg | MaS | 1¾ | 1200 | 24¼ | 44 | 44½ | ..... | 46 |
| 45 | E | CA | HG | Cl | 109 | 1.50x4.37 | 4 | 1040 | 12½ | 145 | 1045 | N | 2.75x2.50 | 3 | 3.00x2.81 | 3.00x3.75 | abcdg | MaS | 1¾ | 1200 | 24¼ | 44 | 44½ | ..... | 47 |
| 45 | N | CA | HG | Cl | 61¾ | 1.25x2.75 | 4 | 1045 | 6¾ | 31½ | 1045 | N | 2.10x1.37 | 4 | 2.25x1.75 | 2.25x1.62 | acdfg | MaS | 1 | 602 | 18 | 29½ | 30½ | ..... | 48 |
| 45 | N | CA | HG | Cl | 72 | 1.25x2.75 | 4 | 1045 | 6¾ | 40 | 1045 | N | 2.25x1.37 | 4 | 2.62x1.87 | 2.62x1.75 | acdfg | MaS | 1 | 664 | 18 | 31½ | 41½ | ..... | 49 |
| (h) | N | ..... | HG | Al | 25½ | .875x3.01 | 3 | DFS | 7¼ | 33 | SF | Y | 2.25x1.31 | 4 | 2.75x1.59 | 2.75x2.06 | abcdfgr | Zen | 1½ | ..... | 25 | 26 | 51 | ..... | 50 |
| (h) | N | ..... | HG | Al | 25½ | .875x3.01 | 3 | DFS | 9¼ | 39 | SF | Y | 2.25x1.37 | 9 | 2.75x1.34 | 2.75x2.09 | abcdfgr | Str | 2 | ..... | 27 | 29 | 59 | ..... | 51 |
| 45 | E | ..... | Ch | Al | 26 | .983x3.03 | 4 | 1038 | 10½ | 50 | 5046 | Y | 2.19x1.50 | 7 | 2.62x1.94 | 2.62x2.47 | abcdg | Zen | 1¼ | 763* | 19¼ | 30¼ | 38¼ | ..... | 52 |
| 45 | E | ..... | Ch | Al | 26 | .983x3.03 | 4 | 1038 | 10½ | 50 | 5046 | Y | 2.19x1.50 | 7 | 2.62x1.94 | 2.62x2.47 | abcdg | Zen | 1½ | 780* | 19¼ | 30¾ | 38¼ | ..... | 53 |
| 45 | E | ..... | Ch | Al | 29 | .983x3.13 | 4 | 1038 | 10½ | 50 | 5046 | Y | 2.19x1.50 | 7 | 2.62x1.94 | 2.62x2.47 | abcdg | Zen | 1½ | 785* | 19¼ | 30½ | 38¼ | ..... | 54 |
| 30 | E | St | HG | Al | 40 | 1.12x3.56 | 4 | 1340 | 7¼ | 56 | 1045 | .... | 2.18x1.62 | 7 | 2.51x1.62 | 2.51x1.62 | acdf | Zen | 1¼ | 872 | 25½ | 34½ | 45½ | 3 | 55 |
| 30 | E | St | HG | Al | 34.7 | 1.12x3.59 | 4 | 1340 | 7¼ | 56 | 1045 | .... | 2.18x1.62 | 7 | 2.51x1.62 | 2.51x1.62 | acdf | Zen | 1¼ | 930 | 25½ | 34½ | 45½ | 3 | 56 |
| 30 | E | Ste | HG | Alb | 31.9 | 1.12x3.11 | 4 | 1340 | 7¼ | 56 | 1045 | .... | 2.18x1.12 | 7 | 2.51x1.62 | 2.51x1.62 | acdfg | Car | ..... | 820 | 25½ | 34½ | 45½ | 3 | 57 |
| 30 | N | ..... | HG | Al | 29.5 | .750x2.81 | 3 | 3140 | 6¾ | 21 | 1045 | N | 1.75x1.12 | 3 | 2.00x1.56 | 2.00x1.82 | acgr | Zen | 1¼ | 410* | 22½ | 21¾ | 32¾ | 6 | 58 |
| 30 | N | ..... | HG | Al | 26 | .875x2.90 | 4 | CS | 7 | 26 | CS | N | 2.00x1.25 | 7 | 2.50x1.31 | 2.50x1.93 | acgr | Zen | 1½ | 675* | 22½ | 23¼ | 41½ | 4 | 59 |
| 30 | N | ..... | HG | Al | 26 | .875x2.92 | 3 | 1035 | 7 | 26 | AS | .... | 2.00x1.25 | 7 | 2.50x1.31 | 2.50x1.93 | acg | Zen | 1½ | 675 | 22½ | 23¼ | 41½ | 4 | 60 |
| 30 | N | ..... | HG | Al | 29.5 | 1.00x3.51 | 4 | 1040 | 8 | 37 | 1045 | N | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | acgr | Zen | 1¼ | 890* | 22½ | 32¼ | 46½ | 4 | 61 |
| 30 | N | ..... | HG | Al | 49 | 1.12x3.44 | 4 | AS | 8 | 39.2 | CS | Y | 2.00x1.50 | 7 | 2.50x1.31 | 2.50x2.12 | acgr | Zen | 1¼ | 890* | 22½ | 32¼ | 46½ | 4 | 62 |
| 45 | E | ..... | HG | Al | 49 | 1.25x3.68 | 4 | AS | 10½ | 70 | NS | Y | 2.75x2.25 | 4 | 3.25x2.25 | 3.25x2.25 | acdr | Hol | 2 | 1050* | 27½ | 32½ | 56¼ | ..... | 63 |
| 45 | E | ..... | HG | Al | 49 | 1.25x3.68 | 4 | AS | 10½ | 70 | NS | Y | 2.75x2.25 | 4 | 3.25x2.25 | 3.25x2.25 | acdr | Str | 2 | 1150* | 24¾ | 29½ | 56¾ | ..... | 64 |
| 45 | N | ..... | HG | Al | 50 | 1.37x3.84 | 4 | AS | 11¼ | 84 | NS | Y | 2.87x2.00 | 4 | 3.00x3.00 | 3.00x3.62 | acdr | Zen | 2 | 1525* | 29½ | 33½ | 66 | ..... | 65 |
| 45 | N | ..... | HG | Al | 58 | 1.37x4.00 | 4 | AS | 11¾ | 84 | NS | Y | 2.87x2.00 | 4 | 3.00x3.00 | 3.00x3.62 | acdr | Zen | 2 | 1525* | 29½ | 33½ | 66 | ..... | 66 |
| 45 | N | ..... | HG | Al | 56 | 1.37x4.00 | 4 | AS | 11¾ | 84 | CS | Y | 2.87x2.25 | 4 | 3.00x3.00 | 3.00x3.62 | acdr | Zen(2) | 2 | 1525* | 29½ | 33½ | 66 | ..... | 67 |
| 45 | Bo | MCS | HG | CAS | 13.5 | .750x2.84 | 3 | DFS | 7 | 18 | CAS | Y | 2.14x1.75 | 4 | 2.50x1.31 | 2.50x1.93 | acd | Hol | 1 | 700* | 22½ | 32½ | 43¼ | ..... | 68 |
| 45 | E | ..... | HG | Al | 49 | 1.25x3.68 | 4 | AS | 10⅞ | 1644 | NS | Y | 2.75x2.25 | 4 | 3.25x2.25 | 3.25x2.25 | acdr | Hol | 2 | 1750* | 35 | 33½ | 58 | ..... | 69 |
| 45 | E | ..... | HG | Al | 49 | 1.25x3.68 | 4 | AS | 10⅞ | 1644 | NS | Y | 2.75x2.25 | 4 | 3.25x2.25 | 3.25x2.25 | acd | Str(2) | 2 | 1750* | 33¼ | 30½ | 58 | ..... | 70 |
| 45 | E | ..... | HG | Al | 49 | 1.25x3.68 | 4 | AS | 10⅞ | 1644 | NS | Y | 2.75x2.25 | 4 | 3.25x2.25 | 3.25x2.25 | acd | Str(2) | 2 | 1750* | 33¼ | 30½ | 58 | ..... | 71 |
| 45 | E | T-12 | Ch | Al | 328 | 2.00x7.00 | 4 | CS | 18 | 416 | CNS | Y | 4.00x3.12 | 9 | 4.00x3.37 | 4.00x5.50 | abcdeg | Zen(4) | 2½ | 7500 | 45 | 64½ | 100½ | ..... | 72 |
| 45 | E | T-12 | Ch | Al | 328 | 2.00x7.00 | 4 | CS | 18 | 416 | CNS | Y | 4.00x3.12 | 9 | 4.00x3.37 | 4.00x5.50 | abcdeg | Zen(4) | 2½ | 7500 | 45 | 64½ | 100½ | ..... | 73 |
| 45 | E | T-12 | Ch | Al | 328 | 2.00x7.00 | 4 | CS | 18 | 416 | CNS | Y | 4.00x3.12 | 9 | 4.00x3.37 | 4.00x5.50 | abcdeg | Zen(4) | 2½ | 9000 | 45 | 64½ | 142¾ | ..... | 74 |
| 45 | E | T-12 | Ch | Al | 328 | 2.00x7.00 | 4 | CS | 18 | 416 | CNS | Y | 4.00x3.12 | 9 | 4.00x3.37 | 4.00x5.50 | abcdeg | Zen(4) | 2½ | 9000 | 45 | 64½ | 121¾ | ..... | 75 |
| 45 | E | T-12 | Ch | Al | 328 | 2.00x7.00 | 4 | CS | 18 | 416 | CNS | Y | 4.00x3.12 | 9 | 4.00x3.37 | 4.00x5.50 | abcdeg | Zen(4) | 2½ | 9000 | 45 | 64½ | 121¾ | ..... | 76 |
| 45 | E | T-12 | HG | Al | 91 | 1.43x4.37 | 5 | 1035 | 12½ | 113 | CNS | .... | 2.50x2.12 | 7 | 3.00x1.75 | 3.00x2.87 | abcdeg | Zen(2) | 1¾ | 2300 | 33 | 41½ | 59½ | 1 | 77 |
| 45 | E | T-12 | HG | Al | 91 | 1.43x4.37 | 5 | 1035 | 12½ | 113 | CNS | .... | 2.50x2.12 | 7 | 3.00x1.75 | 3.00x2.87 | abcdeg | Zen(2) | 1¾ | 1900 | 33 | 34¼ | 73½ | ..... | 78 |
| 45 | N | ..... | HG | CIA | 64 | 1.10x3.25 | 3 | 1045 | 8¼ | 43 | 1045 | N | 1.50x2.12 | 2 | 1.50x3.00 | 1.50x3.00 | Splash | Str | 1 | 415 | 19¼ | 22½ | 38¼ | ..... | 79 |
| 45 | N | ..... | HG | Al | 9 | .625x2.12 | 3 | 1045 | 6 | 14 | 1045 | N | 1.56x1.25 | 2 | ND3207 | ND3207 | adg | MaS | ¼ | 240 | 18¼ | 19¼ | 27½ | ..... | 80 |
| 45 | N | ..... | HG | CIA | 19 | .625x2.40 | 3 | 1045 | 8 | 27 | 1045 | N | 1.75x1.50 | 2 | 1.76x2.81 | 1.73x2.87 | acg | Str | ¾ | 330 | 15½ | 21¼ | 38½ | ..... | 81 |
| 45 | E | CA | HG | Cl | 30 | .875x2.75 | 3 | 1045 | 7¼ | 29 | 1045 | N | 1.75x1.25 | 3 | 2.12x1.43 | 2.12x1.18 | abcdg | Zen | 1 | 490 | 21½ | 24½ | 35 | ..... | 82 |

For abbreviations, see pages 164 and 165

*For Directory of the Manufacturers listed above, see page 190.*

# AUTOMOTIVE GASOLINE

| Line Number | ENGINE MAKE AND MODEL | Designed for | Number of Cylinders, Bore and Stroke (In.) | MAXIMUM BRAKE Hp. at Specified R.P.M. | | Piston Displacement (Cu. In.) | Compression Ratio | Maximum Torque at R.P.M. (Lb. Ft.) with or without Accessories | Cylinder Liners—Type | Crankcase—Upper Half Integral with Cylinders | VALVES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | With Bare Engine | With Standard Accessories | | | | | | Arrangement | Exhaust Head Material (S.A.E. No.) | Max. Head Diameter (In.) | | Min. Port Diameter (In.) | | Lift (In.) | | Stem Diameter (In.) | |
| | | | | | | | | | | | | | Intake | Exhaust | Intake | Exhaust | Intake | Exhaust | Intake | Exhaust |
| | Thorobred—Cont'd | | | | | | | | | | | | | | | | | | | |
| 1 | Arrowhead | M | 4-3⅝x4½ | 43-2200 | 37-2200 | 188.0 | 5.50 | 128- 900 (EA) | N | In | L | SII | 1.56 | 1.56 | 1.37 | 1.37 | .281 | .281 | .375 | .375 |
| 2 | AA | M | 4-3⅝x4¾ | 27-1400 | 24-1400 | 210.0 | 4.00 | 113- 700 (EA) | N | Se | L | NCI | 1.62 | 1.62 | 1.43 | 1.43 | .300 | .300 | .375 | .375 |
| 3 | F | M | 4-4⅛x5 | 39-1400 | 36-1400 | 259.0 | 4.00 | 142-1000 (EA) | N | Se | L | NCI | 1.93 | 1.93 | 1.75 | 1.75 | .300 | .300 | .375 | .375 |
| 4 | B | M | 4-4½x5 | 47-1800 | 44-1800 | 318.0 | 4.00 | 190- 800 (EA) | N | Se | L | CNS | 2.09 | 2.09 | 1.93 | 1.93 | .300 | .300 | .375 | .375 |
| 5 | BB-4 | M | 4-4½x6 | 59-1600 | 56-1600 | 382.0 | 4.00 | 224-1100 (EA) | N | Se | L | SII | 2.34 | 2.34 | 2.12 | 2.12 | .300 | .300 | .437 | .437 |
| 6 | BC-4 | M | 4-5x7 | 80-1200 | 56-1200 | 550.0 | 4.00 | 282- 900 (EA) | N | Se | L | Dia | 2.75 | 2.75 | 2.37 | 2.37 | .375 | .375 | .625 | .625 |
| 7 | BCS-4 | M | 4-5⅝x7 | 75-1100 | 71-1100 | 727.0 | 4.00 | 409- 900 (EA) | N | Se | L | Dia | 2.75 | 2.75 | 2.37 | 2.37 | .375 | .375 | .625 | .625 |
| 8 | BC-Super-4 | M | 4-6x7 | 82-1100 | 78-1100 | 791.7 | 4.00 | 405- 700 (EA) | N | Se | L | Dia | 2.75 | 2.75 | 2.37 | 2.37 | .375 | .375 | .625 | .625 |
| 9 | Hiawatha Spec. | M | 6-4x4½ | 96-2800 | 83-2800 | 320.0 | 5.75 | 210-1000 (BE) | N | In | L | SII | 1.68 | 1.43 | 1.50 | 1.25 | .375 | .375 | .375 | .375 |
| 10 | Arrow-Super-6 | M | 6-4½x4¼ | 98-2500 | 95-2500 | 404.0 | 5.38 | 296- 800 (EA) | N | Se | L | SII | 1.93 | 1.43 | 1.75 | 1.25 | .375 | .375 | .375 | .375 |
| 11 | BB-6 | M | 6-4½x6 | 84-1725 | 80-1725 | 572.5 | 4.00 | 379- 900 (EA) | N | Se | L | SII | 2.34 | 2.34 | 2.12 | 2.12 | .300 | .300 | .437 | .437 |
| 12 | BBS-6 | M | 6-5x6 | 105-1500 | 101-1500 | 707.0 | 4.00 | 420- 900 (EA) | N | Se | L | SII | 2.34 | 2.34 | 2.12 | 2.12 | .300 | .300 | .437 | .437 |
| 13 | BC-6 | M | 6-5x7 | 94-1100 | 90-1100 | 825.0 | 4.00 | 452-1000 (EA) | N | Se | L | Dia | 2.75 | 2.75 | 2.37 | 2.37 | .375 | .375 | .625 | .625 |
| 14 | BCS-6 | M | 6-5⅝x7 | 116-1100 | 112-1100 | 1091.0 | 4.00 | 596- 850 (EA) | N | Se | L | Dia | 2.75 | 2.75 | 2.37 | 2.37 | .375 | .375 | .625 | .625 |
| 15 | BC-Super-8 | M | 6-6x7 | 128-1100 | 124-1100 | 1187.5 | 4.00 | 630- 875 (EA) | N | Se | L | Dia | 2.75 | 2.75 | 2.37 | 2.37 | .375 | .375 | .625 | .625 |
| 16 | Twin Coach FTC-180 | B | 6-4⅛x4¼ | 180-2800 | 162-2800 | 404.0 | 7.50 | 280-1600 (EA) | D | In | I | Aus | 1.77 | 1.68 | 1.62 | 1.50 | .375 | .375 | .373 | .373 |
| 17 | FTC-200 | B | 6-4½x5 | 200-2800 | ..... | 451.0 | 7.50 | 442-1400 | D | In | I | Aus | 1.77 | 1.68 | 1.62 | 1.50 | .375 | .375 | .373 | .373 |
| 18 | FTC-210 | B | 6-4⅞x5 | 210-2800 | ..... | 477.0 | 7.50 | 460-1600 | D | In | I | Aus | 1.77 | 1.68 | 1.62 | 1.50 | .375 | .375 | .373 | .373 |
| 19 | Universal Fisherman-WM | M | 1-4⅝x4½ | ..... | 6-1200 | 67.9 | 5.02 | ..... | N | In | L | SII | 1.87 | 1.87 | 1.62 | 1.62 | .250 | .250 | .375 | .375 |
| 20 | Blue Jacket-AFTL | M | 2-3x3½ | ..... | 12-2200 | 49.5 | 5.79 | ..... | N | In | L | SII | 1.68 | 1.68 | 1.50 | 1.50 | .250 | .250 | .375 | .375 |
| 21 | Atomic Four-UJ | M | 4-2⅞x3⅛ | ..... | 25-3500 | 64.5 | 6.32 | ..... | N | In | L | SII | 1.21 | 1.03 | 1.06 | .875 | .240 | .240 | .312 | .312 |
| 22 | Utility Four-BN | M | 4-2⅝x4 | ..... | 28-2500 | 96.0 | 4.70 | ..... | N | In | L | SII | 1.25 | 1.25 | 1.12 | 1.12 | .234 | .234 | .312 | .312 |
| 23 | Blue Jacket Flexifour-BFA | M | 4-3x3½ | ..... | 38-3500 | 99.0 | 6.54 | ..... | N | In | L | SII | 1.68 | 1.68 | 1.50 | 1.50 | .312 | .312 | .375 | .375 |
| 24 | Superfour-LSG | M | 4-3½x4½ | ..... | 50-3000 | 149.3 | 5.70 | ..... | N | Se | L | SII | 1.56 | 1.56 | 1.37 | 1.37 | .312 | .312 | .375 | .375 |
| 25 | Blue Jacket Six-AMS | M | 6-3x3½ | ..... | 60-3500 | 148.5 | 6.54 | ..... | N | In | L | SII | 1.68 | 1.68 | 1.50 | 1.50 | .312 | .312 | .375 | .375 |
| 26 | Cruiser Six-HCS | M | 6-3⅛x4½ | ..... | 90-3000 | 260.0 | 6.25 | ..... | N | Se | L | SII | 1.68 | 1.68 | 1.50 | 1.50 | .337 | .337 | .375 | .375 |
| 27 | Sea Lion Six-LHS | M | 6-3⅛x4½ | ..... | 110-3400 | 260.0 | 6.25 | ..... | N | Se | L | SII | 1.68 | 1.68 | 1.50 | 1.50 | .337 | .337 | .375 | .375 |
| 28 | Super Six-Express-Z | M | 6-4x4½ | ..... | 145-3200 | 339.2 | 7.20 | 265-2000 | N | In | L | Aus | 1.83 | 1.67 | 1.72 | 1.50 | .356 | .356 | .373 | .373 |
| 29 | Super Six-Stevedor-ZS | M | 6-4x4½ | ..... | 130-2800 | 339.2 | ..... | ..... | N | In | L | Aus | 1.83 | 1.67 | 1.72 | 1.50 | .356 | .356 | .373 | .373 |
| 30 | Vimalert V-1700 | M | 12-5½x6 | ..... | 1000-2600 | 1710.0 | 6.65 | 2020-2600 (EA) | W | Se | I | R43 | 2.00 | 1.75 | 1.56 | 1.37 | .536 | .533 | .622 | .622 |
| 31 | Waukesha (12) ICK | Ind | 4-2½x3⅛ | 18-2600 | 14-2000 | 61.3 | 5.70 | 40-1700 (BE) | N | So | L | SII | 1.12 | .937 | 1.00 | .812 | .226 | .250 | .312 | .312 |
| 32 | (12) FC | T,Tr,Ind | 4-3½x4 | 32-2600 | 24-1800 | 123.0 | 5.88 | 88-1200 (BE) | N | In | L | SII | 1.34 | 1.34 | 1.18 | 1.18 | .281 | .281 | .312 | .312 |
| 33 | (12) XAH | T,Ind | 4-3½x4½ | 43-2200 | 36-1800 | 185.0 | 5.50 | 120-900 (BE) | N | In | L | SII | 1.56 | 1.56 | 1.37 | 1.37 | .302 | .275 | .375 | .375 |
| 34 | 190GL | T,Tr,Ind | 6-3½x4 | 61-1800 | 61-1800 | 265.0 | 6.70 | 210-900 (BE) | W | In | I | SII | 1.40 | 1.28 | 1.25 | 1.12 | .350 | .376 | .375 | .375 |
| 35 | (11) 6BZ | T,B,Ind | 6-4x4½ | 106-3000 | 98-3000 | 320.0 | 6.50 | 235-1000 (BE) | W | In | L | SII | 1.68 | 1.43 | 1.50 | 1.25 | .375 | .375 | .375 | .375 |
| 36 | (11) 140-GK | T,B,Ind | 6-4½x5½ | 142-2250 | 127-2250 | 525.0 | 6.00 | 425-1000 (BE) | W | In | L | SII | 2.12 | 1.56 | 1.87 | 1.37 | .531 | .434 | .434 | .434 |
| 37 | (11) 6SRKR | T,B,Ind | 6-4⅝x5½ | 126-2250 | 109-2250 | 517.0 | 5.50 | 388-800 (BE) | N | Se | L | SII | 2.16 | 1.65 | 1.87 | 1.37 | .386 | .375 | .375 | .375 |
| 38 | (11) 145-GK | T,B,Ind | 6-5x6 | 186-2000 | 172-2000 | 779.0 | 6.20 | 590-1200 (BE) | W | In | I | SII | 2.37 | 1.84 | 2.12 | 1.62 | .594 | .531 | .500 | .500 |
| 39 | (12) 6WAK | T,B,Ind | 6-5⅛x6½ | 235-1800 | 193-1300 | 1197.0 | 5.20 | 865-900 (BE) | W | In | I | SII | 2.65 | 2.22 | 2.37 | 2.00 | .686 | .656 | .500 | .500 |
| 40 | (12) 6NK | Ind | 6-7x6½ | 221-1050 | 200-950 | 1962.0 | 5.50 | 1330-600 (BE) | W | In | I | SII | 2.84 | 2.53 | 2.50 | 2.25 | .718 | .718 | .562 | .562 |
| 41 | (12) 6LRO | Ind | 6-6½x6½ | 430-1050 | 374-900 | 2804.0 | 6.60 | 2260-800 (BE) | W | Se | I | SII | 3.50 | 3.00 | 3.25 | 2.75 | .750 | .840 | .562 | .562 |
| 42 | (11) 145GZ | T,B,Tr,Ind | 6-5⅝x6 | 220-2000 | 206-2000 | 817.0 | 6.00 | 615-1200 (BE) | W | In | I | SII | 2.37 | 1.84 | 2.12 | 1.62 | .594 | .531 | .497 | .496 |
| 43 | 6MZA | T,B,Ind | 6-4½x4½ | 128-2800 | 113-2800 | 404.0 | 5.90 | 290-1000 (BE) | N | In | L | SII | 1.93 | 1.68 | ..... | ..... | .375 | .375 | .375 | .375 |
| 44 | **(11) 140GKB | T,B,Tr,Ind | 6-4½x5½ | 176-2800 | 159-2600 | 525.0 | 6.40 | 435-800 (BE) | W | In | I | SII | 2.12 | 1.56 | 1.87 | 1.37 | .540 | .540 | .437 | .437 |
| 45 | **(11) 140GZB | T,B,Tr,Ind | 6-4⅝x5½ | 188-2800 | 171-2800 | 564.0 | 6.40 | 451-1000 (BE) | W | In | I | SII | 2.12 | 1.56 | 1.87 | 1.37 | .524 | .524 | .437 | .437 |
| 46 | **(11) 145GKB | T,B,Tr,Ind | 6-5x6 | 225-2400 | 207-2400 | 779.0 | 6.20 | 595-1400 (BE) | W | In | I | SII | 2.56 | 2.03 | 2.31 | 1.81 | .600 | .600 | .500 | .500 |
| 47 | 190GL | T,Tr,Ind | 6-3½x3¾ | 36-2000 | 31-2000 | 144.0 | 6.80 | 105- 800 (EA) | W | In | I | SII | 1.31 | 1.13 | 1.18 | 1.00 | .312 | .281 | .372 | .372 |
| 48 | **(11) 195GKA | T,Tr | 6-4½x6 | 122-3000 | 110-3000 | 320.0 | 6.20 | 230-1500 (EA) | N | In | I | SII | 1.84 | 1.59 | 1.69 | 1.44 | .406 | .411 | .372 | .372 |
| 49 | 195GK | T,B,Tr,Ind | 6-4½x6 | 105-2400 | 96-2400 | 320.0 | 6.20 | 232-1500 (EA) | N | In | I | SII | 1.84 | 1.59 | 1.69 | 1.44 | .406 | .411 | .372 | .372 |
| 50 | 135GZ | T,B,Tr,Ind | 6-4⅝x5 | 150-2800 | 135-2800 | 451.0 | 6.00 | 320-1400 (EA) | .... | In | I | SII | 2.06 | 1.81 | ..... | ..... | .452 | .405 | .434 | .434 |
| 51 | White 116A | T | 6-3⅝x4½ | 110-3100 | ..... | 298.0 | 6.66 | 230-1200 (BE) | N | In | L | CNS° | 1.97 | 1.63 | 1.75 | 1.49 | .381 | .381 | .373 | .373 |
| 52 | 120A | T | 6-3⅞x4½ | 114-3000 | ..... | 316.0 | 6.50 | 250-1200 (BE) | N | In | L | SII°(x) | 1.97 | 1.63 | 1.75 | 1.49 | .381 | .381 | .373 | .432 |
| 53 | 130A | T | 6-4x4½ | 120-3000 | ..... | 340.0 | 6.60 | 270-1200 (BE) | N | In | L | SII°(x) | 1.97 | 1.63 | 1.75 | 1.49 | .381 | .381 | .373 | .432 |
| 54 | 140A | T | 6-37x5⅛ | 125-3000 | ..... | 368.0 | 6.60 | 295-1400 (BE) | N | In | L | SII°(x) | 1.97 | 1.63 | 1.75 | 1.49 | .381 | .381 | .373 | .432 |
| 55 | 150A | T | 6-4x5½ | 135-3000 | ..... | 396.0 | 6.45 | 315-1300 (BE) | N | In | L | SII°(x) | 1.97 | 1.63 | 1.75 | 1.49 | .381 | .381 | .373 | .432 |
| 56 | 260A | T | 6-4⅝x5 | 170-2800 | ..... | 451.0 | 6.25 | 350-1200 (BE) | N | In | L | SII°(x) | 2.35 | 1.88 | 1.99 | 1.75 | .423 | .423 | .434 | .432 |
| 57 | 280A | T | 6-4⅝x5 | 184-2800 | ..... | 504.0 | 6.50 | 405-1200 (BE) | N | In | L | SII°(x) | 2.35 | 1.88 | 1.99 | 1.75 | .423 | .434 | .434 | .432 |
| 58 | (H) 280TA | B | 6-4⅝x5 | 176-2700 | ..... | 504.0 | 6.00 | 400-1200 (BE) | N | In | L | SII°(x) | 2.35 | 1.88 | 1.99 | 1.75 | .423 | .423 | .434 | .432 |
| 59 | (H) 24AK | B | 12-4½x4¼ | 210-2700 | ..... | 681.0 | 6.00 | 600-1200 (BE) | D | In | L | SII°(x) | 1.85 | 1.76 | 1.62 | 1.62 | .381 | .381 | .401 | .432 |
| 60 | 230A | T | 6-4x5½ | 147-3000 | ..... | 386.0 | 6.75 | 330-1200 (BE) | N | In | L | SII | 1.97 | 1.63 | 1.75 | 1.49 | .400 | .381 | .373 | .432 |
| 61 | Willys CJ-3A | C,T | 4-3½x4½ | 63-4000 | ..... | 134.2 | 6.48 | 105-2000 (BE) | N | In | L | CHS | 1.53 | 1.46 | 1.34 | 1.28 | .359 | .359 | .373 | .373 |
| 62 | 473 | C,T,Ind | 4-3½x4½ | 72-4000 | ..... | 134.2 | 7.40 | 114-2000 (BE) | N | In | F | (o) | 2.00 | 1.46 | 1.84 | 1.28 | .250 | .351 | .374 | .372 |
| 63 | 673 | C | 6-3½x3½ | 75-4000 | ..... | 161.0 | 6.90 | 125-2000 (BE) | N | In | L | (o) | 1.37 | 1.28 | 1.12 | 1.12 | .284 | .300 | .341 | .340 |
| 64 | Wisconsin TE | Tr,Ind | 2-3x3¼ | 11.2-2600 | 11.2-2600 | 45.9 | 4.60 | 27-1600 (EA) | N | Se | L | Aus | 1.31 | 1.31 | 1.12 | 1.12 | .276 | .276 | .309 | .309 |
| 65 | TF | Tr,Ind | 2-3½x3¼ | 13.3-2600 | 13.3-2600 | 53.9 | 4.67 | 32.5-1600 (EA) | N | Se | L | Aus | 1.31 | 1.31 | 1.12 | 1.12 | .276 | .276 | .309 | .309 |
| 66 | VE-4 | Tr,Ind | 4-3x3¼ | 22-2600 | 22-2600 | 91.9 | 4.60 | 56-1600 (EA) | N | Se | L | Aus | 1.31 | 1.31 | 1.12 | 1.12 | .276 | .276 | .309 | .309 |
| 67 | VF-4 | Tr,Ind | 4-3½x3¼ | 25-2400 | 25-2400 | 107.7 | 4.67 | 67-1600 (EA) | N | Se | L | Aus | 1.31 | 1.31 | 1.12 | 1.12 | .276 | .276 | .309 | .309 |
| 68 | VP-4 | Tr,Ind | 4-3½x4 | 31-2200 | 31-2200 | 154.0 | 4.60 | 88-1400 (EA) | N | Se | L | Aus | 1.56 | 1.56 | 1.37 | 1.37 | .278 | .278 | .309 | .309 |

For other engines see SMALL GASOLINE POWER UNITS table

**ABBREVIATIONS**

*—Includes rod, cap, screws, wristpin, bushing, and bearing.
•—Stellite faced.
•—Weight complete with ignition and carburetor.
••—Pressure also to Camshaft thrust bearing.
‡—As mounted in chassis on tilt.
§—Also available in reduction gear models.
▼—Also available in R.H. rotation.
▼▼—High output.
‡—Tocco hardened.
‡‡—Forked 23.7 oz.—Blade 22.4 oz.
△—Weight per pair.
‖—4 Rings used on Trucks and 5 on Coaches.
▲—5.00 for gasoline—6.00 for natural gas or butane.
▲▲—Tw ⊙ rods used; 1 clamped tight weighing 308 oz., and 1 loose outside of bearing weighing 240 oz.
‖—Dual.
#—Cast Iron 315, Aluminum 250 lbs.
‡—Super-Charged engine.
^^—Weight of piston only.
^—For cars—intake and exhaust lift—.3275 in.
▽—Weight for cars—540 lbs.
▼—For cars—39⅛ in.
^^—Weight for cars—577, for ½ ton trucks—573 lbs.
(2)—Two used.
(4)—Four used.
(7)—Roller bearings.
(9)—Ball bearings.
(11)—Automotive power ratings.
(12)—Industrial power ratings.
(14)—Unilay Type 307 head, 3140 steel stem.
(a)—Main bearings.
(b)—Wristpins.
(c)—Connecting rods.
(d)—Camshaft.
(e)—Accessory drive.
(f)—Valve lifters or rocker arms and shafts.
(g)—Timing gears or chain.
(h)—Intake 30, Exhaust 45
(i)—Intake 30, Exhaust 44.
(m)—A model in this series is also available for use with liquid petroleum gases. The engine will have a higher compression ratio, brake horsepower and torque.
(n)—Intake 15, Exhaust 45.
(o)—EMS-81 alloy.
(p)—Hydraulic valve lifters and cylinder walls.
(r)—Reverse gear.
(s)—Fan drive gear.
(t)—Tappets and valve mechanism.
(u)—Complete with SAE housing.
(x)—Sodium-cooled.
(z)—Intake 30, Exhaust 29.
**AC**—Aluminum or cast iron.
**ACI**—Alloy cast iron.
**AF**—Aircooled fin.
**Al**—Aluminum alloy.
**Ala**—Aluminum alloy, anodised.
**Alb**—Aluminum bronze.
**Als**—Aluminum alloy with steel strut.
**Alst**—Aluminum alloy with steel strut, tin plated.
**Alt**—Aluminum alloy (Tin coated).
**AS**—Alloy steel.
**Aus**—Austenitic steel.
**B**—Buses.
**BE**—Bare engine.
**Be**—Used in both intake and exhaust seats.

***For Directory of the Manufacturers listed above, see page 190.***

# ENGINES—*Concluded*

| VALVES | | | | PISTONS | | | | CONNECTING RODS | | | CRANKSHAFT | | | | | | | | CARBURETOR | | | OVERALL DIMENSIONS (In.) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Seats | | | | | | | | | | | | | | MAIN BEARINGS | | | | | | | | | | | | |
| Angle (Deg. | Inserts Used? | Insert Material (S.A.E. No.) | Camshaft Drive—Type | Material | Weight with Pins, Rings, Bushings (Oz.) | Piston Pin—Diameter and Length (In.) | Number of Rings per Piston | Material | Center to Center Length (In.) | Weight with Bushing and Cap (Oz.) | Material | Counter Balance Used | Crank-Pin Diameter and Length (In.) | Number | Diameter and Length (In.) Front | Diameter and Length (In.) Rear | Oil Pressure to— | Make | Size | Engine Weight without Carburetor or Ignition (Lb.) | Width | Height | Length | Clutch Housing (S.A.E. Nos.) | Line Number |
| 45 | E | CA | HG | CI | 45 | 1.10x3.06 | 4 | 1045 | 8¼ | 46 | 1045 | N | 2.00x1.56 | 3 | 2.00x2.50 | 2.00x1.87 | abcdg | Zen | 1 | 610 | 19⅛ | 26⅛ | 41 | 6 | 1 |
| 45 | N | ..... | HG | CIA | 64 | 1.10x3.25 | 3 | 1045 | 8½ | 43 | 1045 | N | 1.80x2.12 | 3 | 1.50x3.00 | 1.50x3.00 | acg | Zen | 1 | 620 | 19½ | 22⅛ | 48½ | ..... | 2 |
| 45 | N | ..... | HG | CIA | 69 | 1.10x3.56 | 4 | 1045 | 10¼ | 66 | 1045 | N | 2.00x2.25 | 3 | 2.00x4.18 | 2.00x3.50 | acg | Str | 1½ | 830 | 20½ | 26⅛ | 54½ | ..... | 3 |
| 45 | N | ..... | HG | CIA | 89 | 1.10x3.93 | 4 | 1045 | 10¾ | 66 | 1046 | N | 2.00x2.25 | 3 | 2.00x4.18 | 2.00x3.50 | acg | Str | 1½ | 830 | 20½ | 26⅛ | 54½ | ..... | 4 |
| 45 | N | ..... | HG | CIA | 82 | 1.25x3.87 | 4 | 1045 | 11⅝ | 87 | 1045 | N | 2.56x4.25 | 5 | 2.56x4.25 | 2.56x4.25 | acdg | Str | 1½ | 1175 | 22⅛ | 27⅛ | 59⅛ | ..... | 5 |
| 45 | N | ..... | HG | CIA | 126 | 1.43x4.68 | 4 | 1045 | 13¼ | 166 | 1045 | N | 2.56x3.00 | 5 | 2.62x4.50 | 2.62x4.50 | abcdg | Str | 2 | 1720 | 25⅞ | 37½ | 74½ | ..... | 6 |
| 45 | N | ..... | HG | CIA | 150 | 1.43x5.25 | 4 | 1045 | 13¼ | 166 | 1045 | N | 2.56x3.00 | 5 | 2.62x4.50 | 2.62x4.50 | abcdg | Str | 2 | 1730 | 25⅞ | 37½ | 74½ | ..... | 7 |
| 45 | N | ..... | HG | CIA | 190 | 1.43x5.50 | 4 | 1045 | 13¼ | 166 | 1045 | N | 2.56x3.00 | 5 | 2.62x4.50 | 2.62x4.50 | abcdg | Str | 2 | 1740 | 25⅞ | 37½ | 74½ | ..... | 8 |
| 45 | E | CA | HG | AI | 46 | 1.00x3.85 | 4 | 1045 | 8 | 40 | 1045 | N | 2.00x1.50 | 7 | 2.62x2.00 | 2.62x1.25 | abcdg | Zen | 1¼ | 1016 | 22½ | 26⅛ | 53½ | ..... | 9 |
| 45 | E | CA | HG | AI | 48 | 1.00x4.00 | 4 | 1045 | 8¼ | 48 | 1045 | N | 2.25x1.50 | 7 | 2.62x2.75 | 2.62x1.62 | abcdg | Str | 1½ | 1185 | 20½ | 27⅛ | 57½ | ..... | 10 |
| 45 | N | ..... | HG | CIA | 82 | 1.25x3.87 | 4 | 1045 | 11¾ | 87 | 1045 | N | 2.56x2.25 | 7 | 2.58x4.25 | 2.58x4.25 | acdg | Str | 1½ | 1475 | 23½ | 33¼ | 72½ | ..... | 11 |
| 45 | N | ..... | HG | CIA | 106 | 1.25x4.31 | 4 | 1045 | 11¾ | 87 | 1045 | N | 2.56x2.25 | 7 | 2.58x4.25 | 2.58x4.25 | acdg | Str | 2 | 1665 | 24½ | 33¼ | 72½ | ..... | 12 |
| 45 | N | ..... | HG | CIA | 126 | 1.43x4.68 | 4 | 1045 | 13¼ | 166 | 1045 | N | 2.56x3.00 | 7 | 2.62x4.50 | 2.62x4.50 | abcdg | Str | 2 | 2330 | 27½ | 37½ | 91½ | ..... | 13 |
| 45 | N | ..... | HG | CIA | 150 | 1.43x5.25 | 4 | 1045 | 13¼ | 166 | 1045 | N | 2.56x3.00 | 7 | 2.62x4.50 | 2.62x4.50 | abcdg | Str | 2 | 2360 | 27½ | 37½ | 91½ | ..... | 14 |
| 45 | N | ..... | HG | CIA | 190 | 1.43x5.50 | 4 | 1045 | 13¼ | 166 | 1045 | N | 2.56x3.00 | 7 | 2.62x4.50 | 2.62x4.50 | abcdg | Str | 2 | 2380 | 27½ | 37½ | 91½ | ..... | 15 |
| 45 | N | ..... | Ch | AI | 54¼ | 1.25x3.62 | 4 | 4340 | 8½ | 68 | Spec! | Y | 2.49x1.68 | 7 | 2.62x1.81 | 2.62x1.81 | ac | Hol | 1 | 950 | 42¼ | 25 | 47½ | 3 | 16 |
| 45 | N | ..... | Ch | AI | 54¼ | 1.25x3.62 | 4 | 4340 | 8½ | 68 | Spec! | Y | 2.49x1.68 | 7 | 2.62x1.81 | 2.62x1.81 | ac | Hol | 1 | 950 | 42¼ | 25 | 47½ | 3 | 17 |
| 45 | N | ..... | Ch | AI | 54¼ | 1.25x3.62 | 4 | 4340 | 8½ | 68 | Spec! | Y | 2.49x1.68 | 7 | 2.62x1.81 | 2.62x1.81 | ac | Hol | 1 | 950 | 42¼ | 25 | 47½ | 3 | 18 |
| 45 | N | ..... | HG | CI | ..... | 1.00x3.75 | 3 | AI | 8½ | ..... | CS | Y | 2.00x2.00 | 2 | 2.00x2.00 | 2.00x2.00 | Splash | Zen | ⅞ | 200 | 16⅞ | 24½ | 17⅞ | ..... | 19 |
| 45 | N | ..... | HG | AI | 15 | .750x2.56 | 4 | CS | 7¼ | 28 | CS | Y | 1.75x1.37 | 2 | 1.78x1.87 | 1.75x2.00 | acdg | Zen | ⅞ | 300 | 20⅞ | 22⅞ | 28½ | ..... | 20 |
| 45 | N | ..... | HG | AI | ..... | .688x2.16 | 3 | CS | 6 | ..... | CS | Y | 1.56x1.23 | 2 | 1.99x1.62 | 1.99x1.25 | acdgr | Zen | ⅞ | 280 | 17¼ | 18 | 26⅝ | ..... | 21 |
| 45 | N | ..... | HG | CI | 19 | .625x2.44 | 3 | CS | 7½ | 22 | CS | N | 1.50x1.75 | 2 | 1.50x2.75 | 1.50x2.75 | acdg | Zen | 1 | 347 | 17¼ | 21⅞ | 27⅞ | ..... | 22 |
| 45 | N | ..... | HG | AI | 15 | .750x2.56 | 4 | AI | 7½ | 18 | CS | Y | 1.75x1.37 | 3 | 1.75x2.37 | 1.75x2.37 | acdgr | Zen | 1¼ | 439 | 20⅛ | 22⅝ | 34⅛ | ..... | 23 |
| 45 | N | ..... | HG | AI | 20 | .875x2.75 | 4 | AI | 8½ | 30 | CS | N | 2.00x1.75 | 3 | 2.00x2.50 | 2.00x2.50 | acd | Zen | 1¼ | 524 | 18½ | 25⅛ | 39½ | ..... | 24 |
| 45 | N | ..... | HG | AI | 15 | .750x2.56 | 4 | AI | 7½ | 18 | CS | Y | 1.75x1.37 | 4 | 1.75x2.50 | 1.75x2.00 | acdg | Zen | 1¾ | 529 | 24 | 20½ | 43½ | ..... | 25 |
| 45 | N | ..... | HG | AI | 28 | .875x3.00 | 4 | AI | 8½ | 28 | CS | N | 2.00x1.75 | 7 | 2.00x3.00 | 2.00x2.00 | acdg | Str | 1½ | 765 | 20½ | 26⅝ | 49½ | ..... | 26 |
| 45 | N | ..... | HG | AI | 28 | .875x3.00 | 4 | AI | 8½ | 28 | CS | N | 2.00x1.75 | 7 | 2.00x3.00 | 2.00x1.75 | acdg | Str | 1¾ | 810 | 22½ | 26⅝ | 49½ | ..... | 27 |
| 30 | N | ..... | HG | AIr | ..... | 1.12x3.44 | 4 | 1035 | 8 | 39.2 | 1046! | Y | 2.00x1.50 | 7 | 2.50x2.12 | 2.50x1.31 | acr | Zen | 1¼ | 840 | 25 | 25½ | 45⅝ | ..... | 28 |
| 30 | N | ..... | HG | AIr | ..... | 1.12x3.44 | 4 | 1035 | 8 | 39.2 | 1046! | Y | 2.00x1.50 | 7 | 2.50x2.12 | 2.50x1.31 | acr | Zen | ..... | 840 | 25 | 25½ | 45⅝ | ..... | 29 |
| (h) | Y | Spec | ..... | 4145 | 67 | 1.44x2.21 | 5 | 6415 | 10 | 44 | 6415 | Y | 3.00x2.37 | 7 | 3.75x1.31 | 3.75x1.31 | acd | Str | ..... | 2475 | 45½ | 58½ | 98 | ..... | 30 |
| 45 | N | ..... | HG | AI | 8 | .625x2.12 | 4 | 1045 | 6 | 14 | 1045 | N | 1.56x1.25 | 2(9) | ND1207 | ND1207 | ad | Op | ⅜ | 143 | 14⅜ | 20⅛ | 21⅜ | 8 | 31 |
| 45 | E | CA | HG | CI | 30 | .875x2.75 | 4 | 1045 | 7½ | 29 | 1045 | N | 1.75x1.06 | 3 | 2.12x1.10 | 2.12x1.43 | abcdg | Op | 1 | 290 | 19 | 29¼ | 27⅝ | ..... | 32 |
| 45 | E | CA | HG | CI | 45 | 1.12x3.03 | 4 | 1045 | 8¾ | 48 | 1045 | N | 2.00x1.56 | 3 | 2.00x1.87 | 2.00x2.50 | abcdg | Op | 1 | 385 | 17⅞ | 27 | 32½ | 5 | 33 |
| 44½ | N | ..... | HG | CI | ..... | 1.25x3.00 | 4 | 1045 | 9¾ | ..... | 1045 | N | 2.25x1.37 | 4 | 2.62x1.75 | 2.62x1.75 | abcdg | Op | 1½ | ..... | 22 | 29½ | 42¾ | 3 | 34 |
| 45 | E | CA | HG | AI | 46 | 1.00x3.85 | 4 | 1045 | 8 | 40 | 1045 | N | 2.00x1.50 | 7 | 2.62x1.25 | 2.62x2.00 | abcdg | Op | 1½ | 706 | 19¼ | 31 | 39½ | 3 | 35 |
| (h) | E | CA | HG | AI | 64 | 1.37x3.87 | 4 | 1045 | 10¼ | 85 | 1045 | N | 2.62x2.00 | 7 | 3.25x1.75 | 3.25x3.00 | abcdg | Op | 1¾ | 1390 | 23½ | 41⅛ | 50½ | 3 | 36 |
| 30 | E | CA | HG | AI | 70 | 1.37x4.26 | 4 | 1045 | 10¼ | 83 | 1045 | N | 2.75x1.75 | 7 | 3.00x1.87 | 3.00x3.00 | abcdg | Op | 1¾ | 1225 | 24½ | 39¼ | 46½ | 3 | 37 |
| (h) | E | CA | HG | AI | 103 | 1.62x4.87 | 4 | 1045 | 11¾ | 133 | 1045 | N | 3.00x2.25 | 7 | 3.50x2.00 | 3.50x3.50 | abcdg | Op | 2 | 1810 | 25⅞ | 46⅝ | 65½ | 2 | 38 |
| (h) | E | CA | HG | CI | 292 | 1.87x5.80 | 4 | 1045 | 13¼ | 195 | 1045 | N | 3.37x2.37 | 7 | 4.00x2.96 | 4.00x3.56 | abcdg | Op | 2½ | 3050 | 30½ | 50⅞ | 69⅝ | 0 | 39 |
| (h) | E | CA | HG | CI | 304 | 2.00x6.00 | 4 | 1045 | 13¾ | 314 | 1045 | N | 3.25x2.75 | 7 | 3.75x3.75 | 3.75x5.50 | abcdg | Op | 2½ | 6900 | 31½ | 61½ | 76⅝ | 00 | 40 |
| 30 | E | CA | HG | CI | 776 | 2.25x7.75 | 5 | 1045 | 18¾ | 474 | 1045 | N | 4.00x3.75 | 7 | 4.25x4.81 | 4.25x5.50 | abcdg | Op(2) | 2½ | 9200 | 48½ | 68 | 86½ | 00 | 41 |
| (h) | E | TS | HG | AI | 110 | 1.62x4.50 | 4 | 1045 | 11¾ | 133 | 1045 | N | 3.00x2.25 | 7 | 3.50x2.00 | 3.50x5.50 | abcdg | Op | 1¾ | 1810 | 25⅝ | 48⅝ | 65½ | 2 | 42 |
| 45 | E | CA | HG | AI | 45 | 1.00x4.00 | 4 | 1045 | 8¾ | 48 | 1045 | N | 2.25x1.50 | 7 | 2.62x1.62 | 2.62x2.75 | abcdg | Op | 1¾ | 920 | 20⅞ | 34⅝ | 43½ | 3 | 43 |
| (h) | E | TS | HG | AI | 64 | 1.37x3.87 | 4 | 1045 | 10¼ | 86 | C1046 | Y | 2.62x2.00 | 7 | 3.25x1.50 | 3.25x3.00 | abcdg | Op | 1¾ | 1390 | 23½ | 41⅛ | 50½ | 3 | 44 |
| (h) | E | TS | HG | AI | 67 | 1.37x3.87 | 4 | 1045 | 10¼ | 86 | C1046 | Y | 2.62x2.00 | 7 | 3.25x1.89 | 3.25x3.00 | abcdg | Op | 1¾ | 1390 | 23½ | 41⅛ | 50½ | 3 | 45 |
| (h) | E | TS | ..... | AI | 103 | 1.62x4.50 | 4 | 1045 | 11¾ | ..... | C1046 | Y | 3.00x2.25 | 7 | 3.50x2.00 | 3.50x3.50 | abcdg | Op | 2 | 1810 | 25⅞ | 46⅝ | 67½ | 2 | 46 |
| 44½ | N | ..... | HG | CI | 255(3) | 1.25x2.75 | 4 | 1045 | 9¾ | 311 | 1045 | ... | 2.00x1.38 | 3 | 2.25x1.75 | 2.25x1.62 | acdg | Op | 1 | 650 | 19 | 27½ | 30½ | 4 | 47 |
| 44½ | E | St | HG | AI | 0042 | 1.25x2.44 | 4 | 1045 | 8¾ | 47½ | 1045 | Y | 2.62x1.38 | 4 | 2.62x1.88 | 2.62x1.75 | abcd | Op | 1¾ | 775 | 20 | 29 | 44½ | 3 | 48 |
| 44½ | E | St | HG | AI | 0042 | 1.25x2.44 | 4 | 1045 | 8¾ | 47½ | 1045 | Y | 2.62x1.38 | 4 | 2.62x1.88 | 2.62x1.75 | abc | Op | 1¾ | 775 | 20 | 29 | 44½ | 3 | 49 |
| 45 | E | Ste | HG | AI | ..... | 1.50x3.62 | 4 | 1045 | 9½ | ..... | 1046 | ... | 3.00x1.62 | 7 | 3.25x.... | 3.25x.... | abcdg | Op | ..... | ..... | ..... | 26 | 33 | 48 | 2, 3 | 80 |
| 45 | E | St | HG | AI | 39 | 1.18x3.31 | 4 | 1040 | 9¼ | 88 | 1050! | Y | 2.18x1.34 | 7 | 3.00x1.84 | 3.00x1.93 | abcdg | Str | 1¾ | 1075 | 29½ | 40⅝ | 44⅛ | 3 | 81 |
| 45 | E | St | HG | AI | 41 | 1.00x3.48 | 4 | 1040 | 9¼ | 82 | 1050! | Y | 2.18x1.34 | 7 | 3.00x1.84 | 3.00x1.93 | abcdg | Str | 1¾ | 1070 | 29½ | 40⅝ | 44⅛ | 3 | 82 |
| 45 | E | St | HG | AI | 44 | 1.18x3.62 | 4 | 1040 | 9¼ | 82 | 1050! | Y | 2.18x1.34 | 7 | 3.00x1.84 | 3.00x1.93 | abcdg | Str | 1¾ | 1075 | 29½ | 40⅝ | 44⅛ | 3 | 83 |
| 45 | E | St | HG | AI | 41 | 1.00x3.48 | 4 | 1040 | 9¼ | 82 | 1050! | Y | 2.18x1.34 | 7 | 3.00x1.84 | 3.00x1.93 | abcdg | Str | 1¾ | 1070 | 29½ | 40⅝ | 44⅛ | 3 | 84 |
| 45 | E | St | HG | AI | 44 | 1.18x3.62 | 4 | 1040 | 9¼ | 82 | 1050! | Y | 2.18x1.34 | 7 | 3.00x1.84 | 3.00x1.93 | abcdg | Hol | 1¾ | 1070 | 29½ | 40⅝ | 44⅛ | 3 | 85 |
| 45 | E | Spec* | HG | AI | 64 | 1.24x3.93 | 4 | 3130 | 9¼ | 75 | 1050 | Y | 2.50x2.06 | 7 | 3.25x1.88 | 3.25x2.00 | abcdgpe | Hol | 1¾ | 1408* | 34 | 37 | 81 | 2 | 86 |
| 45 | E | Spec* | HG | AI | 62 | 1.24x3.93 | 4 | 3130 | 9¼ | 75 | 1050 | Y | 2.50x2.06 | 7 | 3.25x1.88 | 3.25x2.00 | abcdgpe | Hol | 1¾ | 1442* | 34 | 37 | 81 | 2 | 87 |
| 45 | E | St | HG | AI | 62 | 1.24x3.76 | 5 | 3130 | 9¼ | 75 | 1050! | Y | 2.50x1.81 | 7 | 3.25x1.88 | 3.25x2.00 | abcdg | Zen‡ | 1¾ | 1721 | 88 | 20 | 84 | 1 | 88 |
| (h) | E | St | HG | AI | 44 | 1.18x3.62 | 5 | 1040 | 8¾ | 83 | 1050! | Y | 2.43x2.31 | 7 | 2.87x2.09 | 2.87x2.40 | abcdg | Zen‡ | 1¾ | 2090 | 88 | 21 | 79 | 1 | 89 |
| 45 | E | St | HG | AI | 48.5 | 1.18x3.62 | 4 | 3130 | 9¼ | 96 | 1050! | ... | 2.18x1.34 | 7 | 3.00x1.84 | 3.00x1.93 | abcdg | Hol | 1¾ | 1073 | 29½ | 40⅝ | 44⅛ | 3 | 90 |
| 45 | N | ..... | HG | AI | 18.5 | .812x2.78 | 3 | 1035 | 9¼ | 34 | 1040 | Y | 1.93x1.39 | 3 | 2.33x1.92 | 2.33x1.75 | acdg | Car | 1¼ | 344 | 19 | 28½ | 26¼ | ..... | 81 |
| 45 | N | ..... | HG | AIr | 19 | .812x2.78 | 3 | 1141 | 9¼ | 34 | 1040 | .... | 1.94x1.31 | 3 | 2.33x1.92 | 2.33x1.75 | acdf | Car | 1¼ | 390 | 19½ | 30¼ | 26 | 5 | 82 |
| 45 | N | ..... | HG | AIr | 18.1 | .750x2.66 | 3 | 1141 | 8½ | 22 | 1040 | .... | .750x2.66 | 4 | 2.25x1.30 | 2.25x1.41 | acd | Zen | 1¼ | 406 | 21 | 28¼ | 31 | 5 | 83 |
| 45 | Y | MI | HG | AI | 18 | .750x2.56 | 4 | 1035 | 8½ | 22 | 1045 | Y | 1.78x1.12 | 2 | Timken | Timken | PJ | Zen | ⅝ | 220* | 18¾ | 22⅛ | 22⅛ | ..... | 84 |
| 45 | Y | MI | HG | AI | 18¼ | .750x2.56 | 4 | 1035 | 8½ | 22 | 1045 | Y | 1.78x1.12 | 2 | Timken | Timken | PJ | Zen | ⅝ | 220* | 18⅞ | 22⅛ | 22⅛ | ..... | 85 |
| 45 | Be | MI | HG | AI | 18 | .750x2.56 | 4 | 1035 | 8½ | 22 | 1045 | N | 1.78x1.12 | 2 | Timken | Timken | PJ | Zen | ⅝ | 295* | 21½ | 25⅛ | 25⅛ | ..... | 86 |
| 45 | Be | MI | HG | AI | 18.2 | .750x2.56 | 4 | 1035 | 8½ | 22 | 1045 | N | 1.78x1.12 | 2 | Timken | Timken | PJ | Zen | ⅝ | 295* | 21½ | 25⅛ | 25⅛ | ..... | 87 |
| 45 | Be | MI | HG | AI | 28 | .937x2.75 | 4 | 1035 | 8½ | 29 | 1045 | N | 1.88x1.25 | 2 | Timken | Timken | PJ | MoS | 1 | 418* | 24 | 29¼ | 29½ | ..... | 88 |

For other engines see SMALL GASOLINE POWER UNITS table

**ABBREVIATIONS—Continued.**

C—Cars.
CA—Cast alloy.
Car—Carter Carburetor Corp.
CAS—Cast alloy steel.
Ch—Chain.
CHS—Chrome nickel silicon steel.
CI—Cast iron.
CIA—Cast iron, anodized.
CMS—Carbon manganese steel.
CMT—Chromium tungsten steel.
CNS—Chrome nickel steel.
COE—Cab over engine.
CS—Carbon steel.
D—Dry liners.
DC—Durachrome castings.
DFS—Drop forged steel.
Dia—Diachrome.
Dur—Duraschrome
Dur—Duralumin.
E—Used on exhaust valve seats.
EA—Engine with standard accessories.
Eat—Eatonite.
Ens—Ensign.
F—F-head.
FA—Fire apparatus.
FC—Forward control chassis.
H—Horisontal motor.
HC—Helical gear and chain.
HFA—Hard facing alloy.
HG—Helical gear.
Hh—Horizontal in head (Valve).
Hol—Holley Carburetor Co.
I—In head (Valves).
In—Integral.
Ind—Industrial.
Jad—Jadson.
L—Valves at side (L-Head).
M—Marine.
MA—Molybdenum alloy.
MaS—Marvel-Schebler Carburetor Div.
MCS—Molybdenum chrome steel.
MI—Moly Iron.
MS—Manganese steel.
N—No or none.
NCI—Nickel cast iron.
NC—Nickel chrome.
Nif—Nifferrite.
Nir—Ni-Resist.
NS—Nickel steel.
Op—Optional.
PJ—Pump jet.
PS—Pump splash system.
R-P—Rochester Products.
SA—Special alloy.
SB—Spiral bevel gear.
Se—Separate.
SG—Spur gear.
SF—Steel forging.
Sil—Silichrome steel.
Spec—Special.
SS—Semi-steel.
St—Stellite steel.
Ste—Steel.
Str—Stromberg-Elmira Div.
T-12—Thompson Products No. 12.
Th—Valves opposite (T-Head).
T—Trucks.
TA—Tungsten alloy.
Tr—Tractors.
TS—Tool steel.
Tun—Tungsten steel.
W—Wet Liners.
WM—Wausau Cast Moly No. 1.
Y—Yes.
Zen—Zenith Carburetor Div.
ZC—Zenith or Carter.

***For Directory of the Manufacturers listed above, see page 190.***

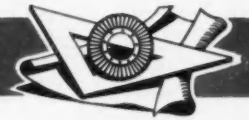
# 1951 AUTOMOTIVE

| Line Number | ENGINE MAKE AND MODEL | Built Under License from | GENERAL: Designed for | Type | Number of Cylinders Bore and Stroke (In.) | Cylinder Liners—Type | Cycle | Piston Displacement (Cu. In.) | With Bare Engine: Maximum Brake Hp. at Specified R.P.M. | With Standard Accessories: Max. Intermittent Hp. at Specified R.P.M. | With Standard Accessories: Continuous Sustained Hp. at Specified R.P.M. | Compression Ratio—to 1 | Max. Combustion Pressure (Lb. per Sq. In.) | B.M.E.P. at Continuous Hp. (Lb. per Sq. In.) | Weight per Continuous Hp. (Lb.) | Max. Torque in Lb. Ft. at Specified R.P.M. | Shipping Weight (Lb.): Automotive or Industrial | Shipping Weight (Lb.): Marine | VALVES: Arrangement | VALVES: Intake Port Diameter and Lift (In.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Atlas Imperial | 4KS668 | I,M | DI | 4-9x10½ | W | 4 | 2572 | | | 192-750 | 14.00 | 850 | 76 | 68.0 | | 13000 | 15100 | HI | 3.25-.875 |
| 2 | | 5KS668 | I,M | DI | 5-9x10½ | W | 4 | 3340 | | | 242-750 | 14.00 | 850 | 76 | 58.0 | | 14000 | 16100 | HI | 3.25-.875 |
| 3 | | 6KS668 | I,M | DI | 6-9x10½ | W | 4 | 4008 | | | 290-750 | 14.00 | 850 | 76 | 59.0 | | 17100 | 20000 | HI | 3.25-.875 |
| 4 | | *6KST668 | I,M | DI | 6-9x10½ | W | 4 | 4008 | | | 435-750 | 13.00 | 900 | 115 | 42.5 | | 18500 | 20800 | HI | 3.25-.875 |
| 5 | | 8KS668 | I,M | DI | 8-9x10½ | W | 4 | 5344 | | | 385-750 | 14.00 | 850 | 76 | 56.1 | | 21600 | 24500 | HI | 3.25-.875 |
| 6 | | *8KST668 | I,M | DI | 8-9x10½ | W | 4 | 5344 | | | 580-750 | 13.00 | 900 | 115 | 39.3 | | 22800 | 25600 | HI | 3.25-.875 |
| 7 | Buda | 1BD-38 | Lanova | I | Ach | 1-3½x4½ | W | 4 | 38 | 8.5-2000 | 7-2000 | 6.5-1800 | 15.30 | 725 | 75 | | 24.5-1400 | | | VI | 1⅝-.490 |
| 8 | | 2BD-77 | Lanova | M,I | Ach | 2-3½x4½ | W | 4 | 77 | 17-2000 | 15.8-2000 | 13-1800 | 15.30 | 725 | 74 | 46.1 | 49-1400 | 600 | 820 | VI | 1⅝-.429 |
| 9 | | 4BD-153 | Lanova | Tr,M,I | Ach | 4-3½x4½ | W | 4 | 153 | 40-2400 | 35-2400 | 27-2000 | 15.30 | 725 | 70 | 28.2 | 104-1400 | 760 | 1000 | VI | 1⅝-.429 |
| 10 | | 4BD-182 | Lanova | Tr,M,I | N | 4-4½x4½ | N | 4 | 182 | 46.5-2400 | 40-2400 | 31-1800 | 15.00 | 725 | 75 | | 122-1400 | | | VI | 1⅝-.429 |
| 11 | | 6BD-230 | Lanova | T,Tr,M,I | Ach | 6-3½x4½ | W | 4 | 230 | 60-2400 | 52-2400 | 40-1800 | 15.30 | 725 | 76 | 21.5 | 156-1400 | 880 | 1200 | VI | 1⅝-.429 |
| 12 | | 6BD-273 | Lanova | M,T,I | Ach | 6-3½x4½ | N | 4 | 273 | 75-2400 | 65-2400 | 50-1800 | 15.00 | 725 | 80 | | 197-1300 | | " | VI | 1⅝-.429 |
| 13 | | 6-DT-317 | Lanova | T,Tr,B,I | Ach | 6-3½x5½ | D | 4 | 317 | 90-2300 | 75-2300 | 56-1800 | 14.50 | 725 | 78 | 20.3 | 224-1500 | 1133 | | VI | 1⅝-.486 |
| 14 | | 6-DTM-317 | Lanova | M | Ach | 6-3½x5½ | D | 4 | 317 | 90-2300 | 75-2100 | 56-1800 | 14.50 | 725 | 78 | 22.3 | 224-1500 | | 1250 | VI | 1⅝-.486 |
| 15 | | 6-DT-468 | Lanova | T,Tr,B,I | Ach | 6-4¼x5½ | D | 4 | 468 | 113-2000 | 97-2000 | 75-1600 | 14.20 | 725 | 79 | 19.1 | 288.5-1100 | 1435 | | VI | 1.59-.486 |
| 16 | | 6-DTM-468 | Lanova | M | Ach | 6-4¼x5½ | D | 4 | 468 | 113-2000 | 97-1800 | 75-1600 | 14.20 | 725 | 79 | 23.7 | 308-1100 | | 1775 | VI | 1.59-.476 |
| 17 | | 6DA-779 | Lanova | T,B,Tr | Ach | 6-5¼x6 | W | 4 | 779 | 185-2100 | 167-2000 | 143-1800 | 4.20 | 175 | 83.5 | | 540-1400 | | | VI | 2-.540 |
| 18 | | 6DC-1879 | Lanova | R,I | Ach | 6-6¾x8½ | W | 4 | 1879 | 248-1100 | 222-1100 | 171-900 | 13.00 | 725 | 80 | 40.6 | 1330-650 | 6950 | | VI | 2.50-.687 |
| 19 | | 6DCM-1879 | Lanova | M | Ach | 6-6¾x8½ | W | 4 | 1879 | 248-1100 | 222-1100 | 186-1000 | 13.00 | 725 | 78 | 34.9 | 1330-650 | | 6500 | VI | 2.50-.687 |
| 20 | | 6-PH-D1879 | Lanova | I | Ach | 6-6¾x8½ | W | 4 | 1879 | 248-1100 | 222-1100 | 171-900 | 13.00 | 725 | 80 | 52.6 | 1330-650 | 9000 | | VI | 2.50-.687 |
| 21 | | 6DA-844 | Lanova | T,Tr,B,I | Ach | 6-5¼x6½ | W | 4 | 844 | 215-2100 | 194-2000 | 166-1800 | 14.2 | 725 | 83.5 | 17.2 | 640-1500 | 2850 | | VI | 2.00-.540 |
| 22 | | 6DAM-844 | Lanova | M | Ach | 6-5¼x6½ | W | 4 | 844 | 215-2100 | 194-2000 | 166-1800 | 14.2 | 725 | 86.5 | 23.5 | 640-1500 | | 3900 | VI | 2.00-.540 |
| 23 | | 6DAS-844 | Lanova | T,B,Tr,I | Ach | 6-5¼x6½ | W | 4 | 844 | 280-2100 | 248-2000 | 189-1600 | 12.8 | 725 | 106 | | 780-1500 | | | VI | 2.00-.540 |
| 24 | | 6DASM-844 | Lanova | M | Ach | 6-5¼x6½ | W | 4 | 844 | 280-2100 | 248-2000 | 189-1600 | 12.8 | 725 | 106 | | 780-1500 | | | VI | 2.00-.540 |
| 25 | | 8DA-1125 | Lanova | T,R,I | Ach | 8-5¼x6½ | W | 4 | 1125 | 288-2100 | 236-2000 | 187-1600 | 14.2 | 725 | 82.5 | | 830-1300 | | | VI | 2.00-.540 |
| 26 | | 8DAM-1125 | Lanova | M | Ach | 8-5¼x6½ | W | 4 | 1125 | 288-2100 | 236-2000 | 187-1600 | 14.2 | 725 | 82.5 | | 830-1300 | | | VI | 2.00-.540 |
| 27 | | 8DAS-1125 | Lanova | T,Tr,I | Ach | 8-5¼x6½ | W | 4 | 1125 | 350-2100 | 312-2000 | 220-1600 | 12.8 | 725 | 97 | | 1040-1400 | | | VI | 2.00-.540 |
| 28 | | 8DASM-1125 | Lanova | M | Ach | 8-5¼x6½ | W | 4 | 1125 | 350-2100 | 312-2000 | 220-1600 | 12.8 | 725 | 97 | | 1040-1400 | | | VI | 2.00-.540 |
| 29 | | 4DC-645 | Lanova | I | Ach | 4-5½x6½ | W | 4 | 645 | 145-1800 | 127-1800 | 97-1400 | | 725 | 85 | | 484-1100 | | | VI | 2.00-.540 |
| 30 | | *6DCS-1879 | Lanova | I | Ach | 6-6¾x8½ | W | 4 | 1879 | 330-1200 | 292-1200 | 212-900 | | 725 | 99 | | 1580-700 | | | VI | 2.50-.687 |
| 31 | | *6DCSMR-1879 | Lanova | M | Ach | 6-6¾x8½ | W | 4 | 1879 | 330-1200 | 292-1200 | 212-900 | | 725 | 99 | | 1580-700 | | | VI | 2.50-.687 |
| 32 | | 8DC-2505 | Lanova | M,I | PC | 8-6¾x8½ | W | 4 | 2505 | 388-1300 | 347-1300 | 264-1000 | 13.00 | 875 | 93.5 | 37.1 | 1810-700 | 9800 | 12350 | VI | 2.50-.687 |
| 33 | | *8DCS-2505 | Lanova | M,I | PC | 8-6¾x8½ | W | 4 | 2505 | 516-1300 | 455-1300 | 348-1000 | 13.00 | 875 | 110 | 31.0 | 2390-800 | 10500 | 13000 | VI | 2.50-.687 |
| 34 | Caterpillar | D-311 | Own | Tr,M,I | PC | 4-4x5 | W | 4 | 252 | 152-1700 | 49-1700 | 39-1700 | 16.50 | | 72 | 49.5 | 164-1300 | 1890 | 2500+ | VI | 1⅛-.421 |
| 35 | | D-315 | Own | Tr,M,I | PC | 4-4⅓x5½ | W | 4 | 350 | 170-1600 | 65.5-1600 | 52.5-1600 | 18.0 | | 74 | 46.7 | 234-1350 | 2450 | 2930+ | VI | 2⅛-.434 |
| 36 | | D-318 | Own | Tr,M,I | PC | 6-4⅓x5½ | W | 4 | 525 | 103-1600 | 98-1600 | 78.5-1600 | 18.0 | | 74 | 39.5 | 347-1300 | 3100 | 3620+ | VI | 2⅛-.434 |
| 37 | | D-326 | Own | Tr,M,I | PC | 6-5¼x6 | W | 4 | 743 | 186-2000 | 158-2000 | 111-1600 | 18.00 | | 74 | 34.2 | 457-1400 | 3800 | | VI | 2⅛-.498 |
| 38 | | D-337 | Own | Tr,M,I | PC | 6-5¼x6 | W | 4 | 743 | 275-2000 | 233-2000 | 181-1600 | 18.00 | | 107 | 24.2 | 655-1830 | 3900 | | VI | 2⅛-.498 |
| 39 | | D-8800 | Own | Tr,M,I | PC | 4-5¼x9 | W | 4 | 831 | 192-1000 | 98-1000 | 79-1000 | 15.7 | | 75 | 58.2 | 561-800 | 4800 | 5530+ | VI | 2⅝-.468 |
| 40 | | D-13000 | Own | Tr,M,R,I | PC | 6-5¼x8 | W | 4 | 1245 | 150-1000 | 145-1000 | 115-1000 | 15.7 | | 73 | 48.7 | 842-800 | 5610 | 7450+ | VI | 2⅝-.468 |
| 41 | | D-17000 | Own | M,I,R | PC | 8-5¾x8 | W | 4 | 1652 | 200-1000 | 190-1000 | 152-1000 | 15.7 | | 72 | 52.6 | 1050-950 | 8000 | 9538+ | VI | 2⅝-.468 |
| 42 | | D-397 | Own | M,I,R | PC | 12-5¼x8 | W | 4 | 2493 | 500-1200 | 474-1200 | 374-1200 | 16.00 | | 99 | 29.5 | 2327-900 | 11000 | 14000+ | VI | 2⅛-.5925 |
| 43 | | D-386 | Own | M,I,R | PC | 12-5¾x8 | W | 4 | 2493 | 400-1200 | 374-1200 | 294-1200 | 16.00 | | 78 | 36.7 | 1850-900 | 10770 | 13770+ | VI | 2⅛-.5925 |
| 44 | | D-375 | Own | M,I,R | PC | 8-5¾x8 | W | 4 | 1662 | 335-1200 | 317-1200 | 250-1200 | 16.00 | | 99 | 33.8 | 1550-900 | 8550 | 11350+ | VI | 2⅛-.5925 |
| 45 | | D-364 | Own | M,I,R | PC | 8-5¾x8 | W | 4 | 1662 | 285-1200 | 247-1200 | 196-1200 | 16.00 | | 78 | 42.7 | 1232-900 | 8370 | 11170+ | VI | 2⅛-.5925 |
| 46 | Climax | D-148 | Own | I | PC | 2-4½x5½ | W | 4 | 149 | 22-1200 | 18-1200 | 18-1200 | 16.00 | 450 | 80 | 111.0 | 97-600 | 2000 | | VI | 1.75-.422 |
| 47 | | D-297 | Own | I | PC | 4-4½x5½ | W | 4 | 298 | 44-1200 | 36-1200 | 35-1200 | 16.00 | 450 | 80 | 63.3 | 192-600 | 3000 | | VI | 1.75-.422 |
| 48 | Continental | GD-157 | Own | I,M | TC | 4-3½x4½ | W | 4 | 157 | 37.6-2000 | 32-2000 | 25-1800 | 15.7 | | 79 | 24.2 | 109-1250 | 905 | | VI | 1.18-.375 |
| 49 | | HD-243 | Own | I | TC | 4-3½x5½ | W | | 243 | 53.1-2000 | 45-2000 | 39.8-1800 | 15 | | 79 | 21.1 | 169.5-1200 | 840 | | VI | 1.37-.325 |
| 50 | | HD-260 | Own | I,M | TC | 4-3½x5½ | W | | 260 | 57.0-2000 | 48.5-2000 | 41.6-1800 | 15 | | 79 | 20.2 | 181-1200 | 940 | | VI | 1.37-.325 |
| 51 | | TD-427 | Own | | TC | 6-4⅛x4½ | N | | 427 | 103-2000 | 87.2-2000 | 74.8-1800 | 14.5 | | 79 | 17.4 | 298-1200 | 1300 | | VI | 1.71-.437 |
| 52 | | RD-572 | Own | I,M | TC | 6-4½x5½ | D | | 572 | 137-2000 | 116-2000 | 96.5-1800 | 14.5 | | 79 | 19.1 | 400-1200 | 1845 | | VI | 1.87-.546 |
| 53 | | TD-6427 | Own | T,B,Tr | TC | 6-4⅛x4½ | N | | 427 | 112-2400 | | 95-2400 | 14.5 | | 106 | 13.4 | 300-1200 | 1270 | | VI | 1.71-.437 |
| 54 | | RD-6572 | Own | T,B,Tr | TC | 6-4½x5½ | D | | 572 | 150-2200 | | 127-2200 | 14.5 | | 105 | 14.1 | 400-1200 | 1785 | | VI | 1.87-.546 |
| 55 | Cummins | A-600 | Own | T,B,Tr,M,R,I | DI | 6-4x5 | W | 4 | 377 | 100-2200 | 85-2200 | 57-1800 | 18.00 | | 75 | 25.2 | 275-1200 | 1640 | 1719 | VI | 1.37-.406 |
| 56 | | H-400 | Own | T,B,Tr,M,R,I | DI | 4-4½x6 | W | 4 | 448 | 100-1800 | 83-1800 | 50-1200 | 17.00 | | 74 | 32.8 | 340-800 | 1840 | 1920 | VI | 1.75-.500 |
| 57 | | H-600 | Own | T,B,Tr,M,R,I | DI | 6-4½x6 | W | 4 | 672 | 150-1800 | 125-1800 | 93-1600 | 17.00 | | 72 | 25.5 | 500-800 | 2595 | 2690 | VI | 1.75-.500 |
| 58 | | *HS-600 | Own | T,B,Tr,M,R,I | DI | 6-4½x6 | W | 4 | 672 | 200-1800 | 175-1800 | 130-1600 | 14.00 | | 101 | 19.8 | 625-1400 | 2780 | 2900 | VI | 1.75-.500 |
| 59 | | NH-600 | Own | T,B,Tr,M,R,I | DI | 6-5½x6 | W | 4 | 743 | 200-2100 | 174-2100 | 130-1800 | 15.50 | | 76 | 19.2 | 535-1400 | 2680 | 2825 | VI | 1.56-.420 |
| 60 | | *NHS-600 | Own | T,B,Tr,M,R,I | DI | 6-5½x6 | W | 4 | 743 | 275-2100 | 240-2100 | 175-1800 | 13.50 | | 101 | 15.8 | 710-1600 | 2975 | 3155 | VI | 1.56-.420 |
| 61 | | HR-600 | Own | T,B,Tr,M,R,I | DI | 6-5½x6 | W | 4 | 743 | 165-1800 | 141-1800 | 106-1600 | 15.50 | | 71 | 25.2 | 540-1000 | 2600 | 2695 | VI | 1.75-.500 |
| 62 | | L-600 | Own | M,R,I | DI | 6-7x10 | W | 4 | 2309 | | 250-1000 | 190-900 | 14.00 | | 72 | 39.8 | 1560-600 | 7790 | 9600 | VI | 2.75-.718 |
| 63 | | HR-400 | Own | T,B,Tr,M,R,I | DI | 4-5½x6 | W | 4 | 495 | 110-1800 | 94-1800 | 71-1600 | 15.50 | | 71 | 25.9 | 360-1050 | 1840 | 1915 | VI | 1.75-.500 |
| 64 | | *HRS-600 | Own | T,B,Tr,R,I | DI | 6-5½x6 | W | 4 | 743 | 225-1800 | 191-1800 | 142-1600 | 13.50 | | 95 | 19.8 | 695-1000 | 2780 | 2900 | VI | 1.75-.500 |
| 65 | | *NHRS-600 | Own | T,B,Tr,M,R,I | DI | 6-5½x6 | W | 4 | 743 | 300-2100 | 255-2100 | 188-1800 | 12.00 | | 111 | 15.6 | 800-1400 | 2925 | 3155 | VI | 1.56-.420 |
| 66 | | NVH-1200 | Own | T,Tr,M,R,I | DI | 12-5½x6 | W | 4 | 1486 | 400-2100 | 350-2100 | 262-1800 | 15.50 | | 78 | 21.0 | 1075-1200 | 5500 | | VI | 1.56-.420 |
| 67 | | *NVHS-1200 | Own | T,Tr,M,R,I | DI | 12-5½x6 | W | 4 | 1486 | 550-2100 | 490-2100 | 350-1800 | 13.50 | | 103 | 14.3 | 1420-1600 | 5000 | | VI | 1.56-.420 |
| 68 | | JBS-600 | Own | T,B | DI | 6-4½x5 | W | 4 | 49 | 150-2500 | | | 15.00 | | | | 360-1400 | 1745 | | JI | 1.38-.500 |
| 69 | | HRBB-600 | Own | T,B,Tr,R,I | DI | 6-5½x6 | W | 4 | 743 | 175-2000 | 148-2063 | 113-1830 | 15.50 | | 67 | 23.4 | 505-1100 | 2650 | | JI | 1.94-.500 |
| 70 | | (†)NHH-600 | Own | B,R | DI | 6-5½x6 | W | 4 | 743 | 200-2100 | | | 15.50 | | | | 535-1300 | 2285 | | JHI | 1.75-. |
| 71 | | LR-600 | Own | M,R,I | DI | 6-7½x10 | W | 4 | 2477 | | 300-1100 | 225-1000 | 13.50 | | 72 | 34.6 | 1650-650 | 7790 | 9600 | JI | 2.75-.718 |
| 72 | General Motors | 2-71 | Own | T,B,Tr,I,M | DI | 2-4¼x5 | D | 2 | 142 | | 65-2000* | 48-1800* | 16.00 | 1000 | 74 | 16.0 | 200-1200 | 770 | | Vwg | VI | No Valves |
| 73 | | 3-71 | Own | T,B,Tr,I,M | DI | 3-4¼x5 | D | 2 | 213 | | 100-2000* | 72-1800* | 16.00 | 1000 | 74 | 17.0 | 300-1200 | 1245 | | Vwg | VI | No Valves |
| 74 | | 4-71 | Own | T,B,Tr,I,M | DI | 4-4¼x5 | D | 2 | 284 | | 133-2000* | 96-1800* | 16.00 | 1000 | 74 | 14.0 | 400-1200 | 1380 | | Vwg | VI | No Valves |
| 75 | | 6-71 | Own | T,B,Tr,I,M | DI | 6-4¼x5 | D | 2 | 426 | | 200-2000* | 145-1800* | 16.00 | 1000 | 74 | 11.0 | 600-1200 | 1655 | | Vwg | VI | No Valves |
| 76 | | Twin 4 | Own | I | DI | 8-4¼x5 | D | 2 | 567 | | 267-2000* | 192-1800* | 16.00 | 1000 | 74 | 24.5 | 1400-685Sh | 4700 | | Vwg | VI | No Valves |
| 77 | | Twin 6 | Own | I,M | DI | 12-4¼x5 | D | 2 | 851 | | 400-2000* | 290-1800* | 16.00 | 1000 | 74 | 16.6 | 2100-685Sh | 5400 | | Vwg | VI | No Valves |
| 78 | | Tandem Twins 6 | Own | M | DI | 12-4¼x5 | D | 2 | 851 | | 400-2000 | 290-1800 | 16.00 | 1000 | 74 | 28.0 | | | | Vwg | VI | No Valves |
| 79 | | Quad 6 | Own | I,M | DI | 24-4¼x5 | D | 2 | 1702 | | 800-2000* | 580-1800* | 16.00 | 1000 | 74 | 20.6 | 4200-685Sh | 12000 | | Vwg | VI | No Valves |
| 80 | | 2-71 | Own | MW | DI | 2-4¼x5 | D | 2 | 142 | | 55-2000 | 48-1800 | 16.00 | 980 | 74 | 27 | | | | Vwg | VI | No Valves |

For abbreviations, see pages 170 and 171

**For Directory of the Manufacturers listed above, see page 190.**

# DIESEL ENGINES



| VALVES | | PISTONS | | | | PISTON PIN | | CONNECTING RODS | | | | MAIN BEARINGS | | INJECTION SYSTEM | | | | | | | | | STARTING METHOD | | OVERALL DIMENSIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Exhaust Port Diameter and Lift (In.) | Material | Length (In.) | Weight with Rings and Pin (Lb.) | No. of Compression Rings | No. of Oil Rings | Diameter and Length (In.) | Locked In— | Material (S. A. E. No.) | Center to Center Length (In.) | Weight with Cap and Bushing (Lb.) | | Number | Diameter (In.) | Make of Pump | Make of Valve | Valve Type—Open or Closed | Orifice | Pressure—Nozzle Opening (Lb. per Sq. In.) | Air Cleaner—Make | Fuel Filter—Make | Lubricant Filter—Make | Minimum Recommended Cetane Number at Fuel | Make | Type | Length—Fan to Flywheel (In.) | Width (In.) | Height—To Top of Air Cleaner (In.) | Line Number |
| 3.25– .875 | CI | 13.00 | 93.0 | 4 | 2 | 3.25-7.62 | F | 4140 | 22.25 | 85.0 | | 5 | 6.25 | Sc | Sc | C | Mu | 3500 | Opt | WP | Win | 42 | Own | A | 96 | 56¼ | 79¼ | 1 |
| 3.25– .875 | CI | 13.00 | 93.0 | 4 | 2 | 3.25-7.62 | F | 4140 | 22.25 | 85.0 | | 6 | 6.25 | Sc | Sc | C | Mu | 3500 | Opt | WP | Win | 42 | Own | A | 112 | 56¼ | 79¼ | 2 |
| 3.25– .875 | CI | 13.00 | 93.0 | 4 | 2 | 3.25-7.62 | F | 4140 | 22.25 | 85.0 | | 7 | 6.25 | Sc | Sc | C | Mu | 3500 | Opt | WP | Win | 42 | Own | A | 125 | 56¼ | 79¼ | 3 |
| 3.25– .875 | CI | 13.25 | 95.0 | 4 | 2 | 3.25-7.62 | F | 4140 | 22.25 | 85.0 | | 7 | 6.25 | Sc | Sc | C | Mu | 3500 | Opt | WP | Win | 42 | Own | A | 140 | 56¼ | 90 | 4 |
| 3.25– .875 | CI | 13.00 | 93.0 | 4 | 2 | 3.25-7.62 | F | 4140 | 22.25 | 85.0 | | 9 | 6.25 | Sc | Sc | C | Mu | 3500 | Opt | WP | Win | 42 | Own | A | 155 | 56¼ | 79¼ | 5 |
| 3.25– .875 | CI | 13.25 | 95.0 | 4 | 2 | 3.25-7.62 | F | 4140 | 22.25 | 85.0 | | 9 | 6.25 | Sc | Sc | C | Mu | 3500 | Opt | WP | Win | 42 | Own | A | 169 | 56¼ | 90 | 6 |
| 1.12– .429 | AA | 4.12 | 2.38 | 3 | 2 | 1.00-2.75 | F | 1035 | 7½ | 2.62 | | 2 | 2.50 | AB | AB | C | Pi | 2000 | Uni | Com | Fra | 45 | AL | E-H | 18½ | 19¼ | 29½ (11) | 7 |
| 1.12– .429 | AA | 4.12 | 2.38 | 3 | 2 | 1.00-2.75 | F | 1035 | 7½ | 2.62 | | 3 | 2.50 | AB | AB | C | Pi | 2000 | Uni | Com | Fra | 45 | AL | E-H | 22½ | 19¼ | 29½ (11) | 8 |
| 1.12– .429 | AA | 4.12 | 2.38 | 3 | 2 | 1.00-2.84 | F | 1035 | 7½ | 2.62 | | 3 | 2.50 | AB | AB | C | Pi | 2000 | Uni | Com | Fra | 45 | AL | Ele | 30½ | 19¼ | 26½ (12) | 9 |
| 1.12– .429 | AA | 4.48 | 2.69 | 3 | 2 | 1.00x3.10 | F | 1035 | 7½ | 2.62 | | 3 | 2.50 | AB | AB | C | Pi | 2000 | Uni | Com | Fra | 45 | AL | Ele | 30½ | 19¼ | 26½ (12) | 10 |
| 1.12– .429 | AA | 4.12 | 2.38 | 3 | 2 | 1.00-2.84 | F | 1035 | 7½ | 2.62 | | 7 | 2.50 | AB | AB | C | Pi | 2000 | Uni | Com | Fra | 45 | AL | Ele | 38½ | 19¼ | 26½ (12) | 11 |
| 1.12– .429 | AA | 4.48 | 2.69 | 3 | 2 | 1.00x3.10 | F | 1035 | 7½ | 2.62 | | 7 | 2.50 | AB | AB | C | Pi | 2000 | Uni | Com | Fra | 45 | AL | Ele | 38½ | 19¼ | 26½ (12) | 12 |
| 1.18– .486 | AA | 4.93 | 3.00 | 3 | 2 | 1.25-2.92 | F | 1035 | 9.50 | 3.41 | | 7 | 3.00 | AB | AB | C | Pi | 2000 | Uni | B-P | DeL | 45 | DR | Ele | 42½ | 27 | 35½ (12) | 13 |
| 1.18– .486 | AA | 4.93 | 3.00 | 3 | 2 | 1.25-2.92 | F | 1035 | 9.50 | 3.41 | | 7 | 3.00 | AB | AB | C | Pi | 2000 | | B-P | DeL | 45 | DR | Ele | 54¼ (11) | 27½ | 34½ (12) | 14 |
| 1.37– .476 | AA | 5.25 | 4.48 | 3 | 2 | 1.50-3.56 | F | 6140 | 11.00 | 4.87 | | 7 | 3.00 | AB | AB | C | Pi | 2000 | Uni | B-P | DeL | 45 | DR | Ele | 48½ | 25¾ | 37½ (12) | 15 |
| 1.37– .476 | AA | 5.25 | 4.48 | 3 | 2 | 1.50-3.56 | F | 6140 | 11.00 | 4.87 | | 7 | 3.00 | AB | AB | C | Pi | 2000 | | B-P | DeL | 45 | DR | Ele | 61½ (11) | 29½ | 36¼ (12) | 16 |
| 1.81– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | | 7 | 3.89 | AB | AB | C | Pi | 2000 | Uni | Com | DeL | 45 | L-D | Ele | 58½ | 29¼ | 48 | 17 |
| 2.16– .687 | AA | 9.31 | 19.19 | 3 | 2 | 2.75-5.53 | F | 1035 | 17.75 | 28.51 | | 7 | 4.50 | AB | AB | C | Pi | 1800 | Uni | P-S | DeL | 45 | D-N | E-G | 86½ | 38½ | 62½ (12) | 18 |
| 2.16– .687 | AA | 9.31 | 19.19 | 3 | 2 | 2.75-5.53 | F | 1035 | 17.75 | 28.51 | | 7 | 4.50 | AB | AB | C | Pi | 1800 | | P-S | DeL | 45 | D-N | E-G | 114½ (11) | 37¼ | 62½ (12) | 19 |
| 2.16– .687 | AA | 9.31 | 19.19 | 3 | 2 | 2.75-5.53 | F | 1035 | 17.75 | 28.51 | | 7 | 4.50 | AB | AB | C | Pi | 1800 | Uni | P-S | DeL | 45 | D-N | E-G | 95½ | 48 | 62½ (12) | 20 |
| 1.81– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | | 7 | 3.89 | AB | AB | C | Pi | 2000 | Uni | AB | DeL | 45 | L-D | E-G | 58½ | 29½ | 48¼ | 21 |
| 1.81– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | | 7 | 3.89 | AB | AB | C | Pi | 2000 | | AB | DeL | 45 | L-D | E-G | 83½ | 30¼ | 46½ | 22 |
| 1.81– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | | 7 | 3.89 | AB | AB | C | Pi | 2000 | | AB | DeL | 45 | L-D | E-G | 58½ | 32½ | 48¼ | 23 |
| 1.81– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | | 7 | 3.89 | AB | AB | C | Pi | 2000 | | AB | DeL | 45 | L-D | E-G | 69½ | 30¼ | 48½ | 24 |
| 1.81– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | 9 | 3.89 | AB | AB | C | Pi | 2000 | | AB | Com | 45 | L-D | E-G | 73 | 30¼ | 48½ | 25 |
| 1.81– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | 9 | 3.89 | AB | AB | C | Pi | 2000 | | AB | Com | 45 | L-D | E-G | 101¼ | 36½ | 46½ | 26 |
| 1.81– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | 9 | 3.89 | AB | AB | C | Pi | 2000 | | AB | Com | 45 | L-D | E-G | 83½ | 32½ | 53½ | 27 |
| 1.81– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | 9 | 3.89 | AB | AB | C | Pi | 2000 | | AB | Com | 45 | L-D | E-G | 101¼ | 36½ | 46½ | 28 |
| 1.87– .540 | AA | 6.75 | 6.70 | 3 | 2 | 1.75-4.50 | F | 1040 | 12.50 | 10.62 | 5 | 3.75 | AB | AB | C | Pi | 2000 | Com | Com | DeL | 45 | DR | Ele | 44½ | 30¼ | 48¼ | 29 |
| 2.16– .687 | AA | 9.31 | 19.19 | 3 | 2 | 2.75-5.53 | F | 1035 | 17.75 | 28.51 | 7 | 4.50 | AB | AB | C | Pi | 1800 | | Pur | DeL | 45 | LB | E-G | 88½ | 40 | 63½ | 30 |
| 2.16– .687 | AA | 9.31 | 19.19 | 3 | 2 | 2.75-5.53 | F | 1035 | 17.75 | 28.51 | 7 | 4.50 | AB | AB | C | Pi | 1800 | | Pur | DeL | 45 | LB | E-G | 126½ | 48 | 72½ | 31 |
| 2.16– .687 | AA | 9.31 | 19.19 | 3 | 2 | 2.75-5.53 | F | 1035 | 17.75 | 28.51 | 9 | 4.69 | AB | AB | C | Pi | 1800 | Don | Pur | DeL | 45 | LN | AEG | 108½ | 47½ | 74½ | 32 |
| 2.16– .687 | AA | 9.31 | 19.19 | 3 | 2 | 2.75-5.53 | F | 1035 | 17.75 | 28.51 | 9 | 4.69 | AB | AB | C | Pi | 1800 | Don | Pur | DeL | 45 | LN | AEG | 112½ | 47½ | 74½ | 33 |
| 1½– .423 | Alu | 5.53 | | 3 | 2 | 1.62-3.23 | F | 1040 | 10.25 | | | 5 | 2.75 | Own | Own | C | Si | 750 | Don | Own | Pur | 35 | Own | G | 56½ | 27½ | 51½ | 34 |
| 1½– .434 | Alu | 6.16 | | 3 | 2 | 1.81-3.73 | F | 1040 | 10.25 | | | 5 | 3.50 | Own | Own | C | Si | 750 | Don | Own | Pur | 35 | Own | G | 58½ | 29½ | 49½ | 35 |
| 1½– .434 | Alu | 6.16 | | 3 | 2 | 1.81-3.73 | F | 1040 | 10.25 | | | 7 | 3.50 | Own | Own | C | Si | 750 | Don | Own | Pur | 35 | Own | G | 76½ | 31½ | 58½ | 36 |
| 1⅝– .498 | AA | 6.39 | | 3 | 2 | 2.00-4.17 | F | 1040 | 11.00 | | | 7 | 4.25 | Own | Own | C | Si | 750 | Don | Own | Pur | 35 | Own | G | 70½ | 37½ | 51½ | 37 |
| 1⅝– .498 | AA | 6.39 | | 3 | 2 | 2.00-4.17 | F | 1040 | 11.00 | | | 7 | 4.25 | Own | Own | C | Si | 750 | Don | Own | Pur | 35 | Own | G | 71½ | 37½ | 56½ | 38 |
| 2⅛– .468 | Alu | 9.18 | | 3 | 1 | 2.37-4.73 | F | 1040 | 15.00 | | | 5 | 3.75 | Own | Own | C | Si | 1750 | Don | Own | Pur | 35 | Own | G | 69½ | 40 | 66½ | 39 |
| 2⅛– .468 | Alu | 9.18 | | 3 | 1 | 2.37-4.73 | F | 1040 | 15.00 | | | 7 | 3.75 | Own | Own | C | Si | 1750 | Don | Own | Pur | 35 | Own | G | 87½ | 42¾ | 67¾ | 40 |
| 2⅛– .468 | Alu | 9.18 | | 3 | 1 | 2.37-4.73 | F | 1040 | 16.00 | | | 5 | 4.00 | Own | Own | C | Si | 1750 | Don | Own | Pur | 35 | Own | G | 85 | 50¼ | 66½ | 41 |
| 2⅛– .5925 | Alu | 8.18 | | 3 | 1 | 2.39-4.73 | F | 1040 | 18.00 | | | 7 | 5.50 | Own | Own | C | Si | 750 | Don | Own | Pur | 35 | O-D | A-El | 112½ | 48¼ | 70½ | 42 |
| 2⅛– .5925 | Alu | 8.18 | | 3 | 1 | 2.39-4.73 | F | 1040 | 18.00 | | | 7 | 5.50 | Own | Own | C | Si | 750 | Don | Own | Pur | 35 | O-D | A-El | 108½ | 48¼ | 70½ | 43 |
| 2⅛– .5925 | Alu | 8.18 | | 3 | 1 | 2.39-4.73 | F | 1040 | 18.00 | | | 5 | 5.50 | Own | Own | C | Si | 750 | Don | Own | Pur | 35 | O-D | A-El | 88½ | 48¼ | 70½ | 44 |
| 2⅛– .5925 | Alu | 8.18 | | 3 | 1 | 2.39-4.73 | F | 1040 | 18.00 | | | 5 | 5.50 | Own | Own | C | Si | 750 | Don | Own | Pur | 35 | O-D | A-El | 88½ | 48¼ | 70½ | 45 |
| 1.75– .422 | NI | 6.12 | 7.87 | 4 | 1 | 1.75-3.50 | F | 1045 | 11.50 | 6.43 | | 4 | 3.00 | AB | AB | C | Pi | 2200 | Ver | CB | Nug | 45 | AL | Ele | 46 | 32 | 53 | 48 |
| 1.75– .422 | NI | 6.12 | 7.87 | 4 | 1 | 1.75-3.50 | F | 1045 | 11.50 | 6.43 | | 6 | 3.00 | AB | AB | C | Pi | 2200 | Ver | CB | Nug | 45 | AL | Ele | 66 | 32 | 53 | 47 |
| 1.06– .375 | AA | 3.75 | | 3 | 1 | 1.12– | F | | 7.00 | | | 3 | 2.37 | A-E | A-E | | Si | (a) | Opt | | | | | Ele | 31½ | 19¼ | 30¼ | 48 |
| 1.25– .328 | AA | 4.31 | | 3 | 2 | 1.25– | | | 9.50 | | | 3 | 2.87 | A-E | A-E | | Si | (a) | | | | | | Ele | 33½ | 21½ | 35 | 49 |
| 1.25– .328 | AA | 4.31 | | 3 | 2 | 1.25– | F | | 9.50 | | | 3 | 2.87 | A-E | A-E | | Si | (a) | | | | | | Ele | 33½ | 21½ | 35 | 50 |
| 1.50– .437 | AA | 4.66 | | 3 | 2 | 1.43– | F | | 8.37 | | | 7 | 2.87 | A-E | A-E | | Si | (a) | Opt | | | | | Ele | 47½ | 27½ | 37¼ | 51 |
| 1.68– .546 | AA | 5.93 | | 3 | 2 | 1.50– | F | | 10.50 | | | 7 | 3.25 | A-E | A-E | | Si | (a) | Opt | | | | | Ele | 51½ | 31½ | 44½ | 52 |
| 1.50– .437 | AA | 4.66 | | 3 | 2 | 1.25– | F | | 8.37 | | | 7 | 2.87 | A-E | A-E | | Si | (a) | Opt | | | | | Ele | | | | 53 |
| 1.65– .546 | AA | 5.93 | | 3 | 2 | 1.50– | F | | 10.50 | | | 7 | 3.25 | A-E | A-E | | Si | (a) | Opt | | | | | Ele | | | | 54 |
| 1.37– .406 | CI | 5.04 | 5.70 | 3 | 2 | 1.49-3.37 | F | | 9.50 | 6.0 | | 7 | 3.87 | Own | Own | | Mu | | Don | Com | Nug | 45 | L-D | Ele | 48½ (2) | 29½ | 39½ (3) | 55 |
| 1.75– .500 | CI | 6.25 | 10.56 | 3 | 2 | 1.99-4.09 | F | | 12.00 | 10½ | | 5 | 4.50 | Own | Own | | Mu | | Don | Com | Nug | 45 | L-D | Ele | 43½ (2) | 29½ | 47½ (3) | 56 |
| 1.75– .500 | CI | 6.25 | 10.56 | 3 | 2 | 1.99-4.09 | F | | 12.00 | 10½ | | 7 | 4.50 | Own | Own | | Mu | | Don | Com | Nug | 45 | L-D | Ele | 57½ (2) | 29½ | 47½ (3) | 57 |
| 1.75– .500 | Alu | 6.25 | 7.21 | 3 | 2 | 1.99-4.09 | F | | 12.00 | 10½ | | 7 | 4.50 | Own | Own | | Mu | | Don | Com | Nug | 45 | L-D | Ele | 60½ (2) | 30½ | 47½ (3) | 58 |
| 1.68– .420 | Alu | 6.25 | 8.75 | 3 | 1 | 1.99-4.34 | F | | 12.00 | 10½ | | 7 | 4.50 | Own | Own | | Mu | | Don | Com | AM | 45 | L-D | Ele | 61½ (2) | 29½ | 48¼ (3) | 60 |
| 1.06– .420 | Alu | 6.25 | 8.65 | 3 | 1 | 1.99-4.34 | F | | 12.00 | 10½ | | 7 | 4.50 | Own | Own | | Mu | | Don | Com | AM | 45 | L-D | Ele | 60½ (2) | 32½ | 48½ (3) | 60 |
| 1.75– .900 | Alu | 6.25 | 8.75 | 3 | 1 | 1.99-4.34 | F | | 12.00 | 10.50 | | 7 | 4.50 | Own | Own | | Mu | | Don | Com | AM | 45 | L-D | Ele | 62½ (2) | 27½ | 47½ (3) | 61 |
| 2.75– .718 | CI | 10½ | 38.97 | 5 | 2 | 2.88-6.00 | F | | 18.00 | | | 7 | 5.50 | Own | Own | | Mu | | Don | Nug | Nug | 45 | | A-El | 98 | 44½ | 58½ | 62 |
| 1.75– .500 | CI | 6.25 | 10.5 | 3 | 1 | 1.99-4.34 | F | | 12.00 | 10.50 | | 5 | 4.50 | Own | Own | | Mu | | Don | Com | AM | 45 | L-D | Ele | 43½ | 29½ | 47½ (3) | 63 |
| 1.75– .500 | Alu | 6.25 | 8.65 | 3 | 1 | 1.99-4.34 | F | | 12.00 | 10.50 | | 7 | 4.50 | Own | Own | | Mu | | Don | Com | AM | 45 | L-D | Ele | 60½ | 30½ | 47½ (3) | 64 |
| 1.56– .420 | Alu | 6.25 | 8.65 | 3 | 1 | 1.99-4.34 | F | | 12.00 | 10.50 | | 7 | 4.50 | Own | Own | | Mu | | Don | Com | AM | 45 | L-D | Ele | 60½ | 32½ | 48½ | 65 |
| 1.56– .420 | Alu | 6.25 | 8.65 | 3 | 1 | 1.99-4.34 | F | | 12.00 | | | 7 | 5.00 | Own | Own | | Mu | | Don | Pur | Nug | 45 | L-D | Ele | 73 | 41 | 57 (3) | 66 |
| 1.56– .420 | Alu | 6.25 | 8.65 | 3 | 1 | 1.99-4.34 | F | | 12.00 | | | 7 | 5.00 | Own | Own | | Mu | | Don | Pur | Nug | 45 | L-D | Ele | 73 | 42 | 57 (3) | 67 |
| 1.38– .500 | Alu | 4.75 | | 3 | 1 | 1.50-3.37 | F | | 9.50 | 6.60 | | 7 | 3.88 | Own | Own | | Mu | | Don | Com | AM | 45 | L-D | Ele | 46½ | 24½ | 40½ (3) | 68 |
| 1.94– .500 | Alu | 6.25 | 8.65 | 3 | 1 | 1.99-4.34 | F | | 12.00 | 10.50 | | 7 | 4.50 | Own | Own | | Mu | | Don | Com | AM | 45 | L-D | Ele | 61½ | 27½ | 47½ (3) | 69 |
| 1.75– | Alu | 6.25 | 8.65 | 3 | 1 | 1.99-4.34 | F | | 12.00 | 10.50 | | 7 | 4.50 | Own | Own | | Mu | | Don | Com | AM | 45 | DR | Ele | 65½ | 55½ | 22½ | 70 |
| 2.75– .718 | Alu | 10.66 | | 3 | 2 | 2.88-6.00 | F | | 18.00 | | | 7 | 5.50 | Own | Own | | Mu | | Don | Nug | Nug | 45 | | A-El | 98 | 44½ | 58½ | 71 |
| 1.25– .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | | 3 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 31 | 27½ | 35½ •• | 72 |
| 1.25– .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | | 4 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 37½ | 29½ | 39½ •• | 73 |
| 1.25– .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | | 5 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 29½ | 29½ | 40½ •• | 74 |
| 1.25– .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | | 7 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 54½ | 56½ (15) | 41¼ •• | 75 |
| 1.25– .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 10 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 68½ (15) | 56 (15) | 57½ (15) ‡‡ | 76 |
| 1.25– .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 14 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 79½ (15) | 56 (15) | 57½ (15) ‡‡ | 77 |
| 1.25– .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 14 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 129 | 37½ | 57½ | 78 |
| 1.25– .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 28 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 178 (15) | 29½ | 66½ (15) ‡‡ | 79 |
| 1.25– .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 3 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 42½ | 30½ | 35½ • | 80 |

For abbreviations, see pages 170 and 171

*For Directory of the Manufacturers listed above, see page 190.*

| Line Number | ENGINE MAKE AND MODEL | Built Under License from | GENERAL: Designed for | Type | Number of Cylinders Bore and Stroke (In.) | Cylinder Liners – Type | Cycle | Piston Displacement (Cu. In.) | With Bare Engine: Maximum Brake Hp. at Specified R.P.M. | With Standard Accessories: Max. Intermittent Hp. at Specified R.P.M. | With Standard Accessories: Continuous Sustained Hp. at Specified R.P.M. | Compression Ratio to 1 | Max. Combustion Pressure (Lb. per Sq. In.) | B.M.E.P. at Continuous Hp. (Lb. per Sq. In.) | Weight per Continuous Hp. (Lb.) ♦ | Max. Torque in Lb. Ft. at Specified R.P.M. | Shipping Weight (Lb.): Automotive or Industrial | Shipping Weight (Lb.): Marine | VALVES: Arrangement | VALVES: Intake Port Diameter and Lift (In.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | General Motors, Cont. | | | | | | | | | | | | | | | | | | | |
| 1 | 3-71 | Own | MW | DI | 3-4¼x5 | D | 2 | 213 | ..... | 85-2000 | 72-1800 | 16.00 | 980 | 74 | 28 | ..... | ..... | Vwg | VI | No Valves |
| 2 | 4-71 | Own | MW | DI | 4-4¼x5 | D | 2 | 284 | ..... | 113-2000 | 96-1800 | 16.00 | 980 | 74 | 25.0 | ..... | ..... | Vwg | VI | No Valves |
| 3 | 6-71 | Own | MW | DI | 6-4¼x5 | D | 2 | 426 | ..... | 170-2000 | 145-1800 | 16.00 | 980 | 74 | 18.3 | ..... | ..... | Vwg | VI | No Valves |
| 4 | Twin 6 | Own | MW | DI | 12-4¼x5 | D | 2 | 851 | ..... | 340-2000 | 290-1800 | 16.00 | 980 | 74 | 20.0 | ..... | ..... | Vwg | VI | No Valves |
| 5 | Tandem Twins 6 | Own | MW | DI | 12-4¼x5 | D | 2 | 851 | ..... | 340-2000 | 290-1800 | 16.00 | 980 | 74 | 26.0 | ..... | ..... | Vwg | VI | No Valves |
| 6 | Quad 6 | Own | MW | DI | 24-4¼x5 | D | 2 | 1702 | ..... | 680-2000 | 580-1800 | 16.00 | 980 | 74 | 21.7 | ..... | ..... | Vwg | VI | No Valves |
| 7 | 6-110 | Own | T,B,Tr,M,R,I | DI | 6-5x5.6 | D | 2 | 660 | ..... | 275-1800■ | 200-1600■ | 18.00 | 1200 | 75 | 14.8 | 864-1200 | 2960 | Vwg | VI | No Valves |
| 8 | Gray Marine Four D-157 | ..... | M | TC | 4-3½x4½ | W | 4 | 157 | 30-1800 | ..... | ..... | 15.00 | ..... | ..... | 34.2 | 108-1800 | ..... | 1100 | VI | 1.18- .273 |
| 9 | Four D-260 | ..... | M | TC | 4-3½x5½ | W | 4 | 260 | 50-1800 | ..... | ..... | 15.00 | ..... | ..... | 27.2 | 167-1200 | ..... | 1400 | VI | 1.37- .248 |
| 10 | Six D-572 | ..... | M | TC | 6-4½x5½ | D | 4 | 572 | 135-2200 | ..... | ..... | 15.00 | ..... | ..... | 13.0 | 401-1800 | ..... | 2750 | VI | 1.87- .546 |
| 11 | Hallett AC1 | Own | Tr,I | PC | 1-3½x3½ | N | 4 | 35 | 7-2200 | 5.5-1800 | 5-1800 | 21.80 | 1000 | 80 | 44.0 | ..... | 220 | ..... | VI | 1.25- .315 |
| 12 | DI-A | Own | I,M | PC | 1-3½x4¼ | N | 4 | 50 | 11-1800 | 10-1800 | 8-1500 | 21.60 | 1000 | 64 | 57.0 | 32-1800 | 460 | 625 | VI | 1.62- .313 |
| 13 | D2-M | Own | I,M | PC | 2-3½x4¼ | N | 4 | 100 | 22-1800 | 20-1800 | 18-1500 | 21.60 | 1000 | 97 | 33.0 | 64-1800 | 880 | 760 | VI | 1.62- .316 |
| 14 | Hercules DIXC | Own | Tr,M,I | TC | 2-4x4½ | D | 4 | 113 | 217-1800 | 23-1800 | 23-1800 | 15.50 | 750 | 92 | 23.9 | 81-1400 | 550 | ..... | VI | 1.62- .375 |
| 15 | DIXD | Own | Tr,M,I | TC | 2-4½x4½ | D | 4 | 127 | 30-1800 | 26-1800 | 26-1800 | 15.50 | 750 | 88 | 21.6 | 91-1300 | 550 | ..... | VI | 1.62- .375 |
| 16 | DIX4B | Own | T,B,Tr,M,R,I | TC | 4-3½x4 | D | 4 | 133 | 46-3000 | 39-3000 | 33-2200 | 15.00 | 825 | 89 | 18.3 | 96-1500 | 600 | ..... | VI | 1.37- .350 |
| 17 | DIX4D | Own | T,B,Tr,M,R,I | TC | 4-3½x4 | D | 4 | 165 | 57-3000 | 48-3000 | 41-2200 | 15.00 | 825 | 90 | 14.6 | 120-1500 | 600 | ..... | VI | 1.66- .350 |
| 18 | DOOB | Own | T,Tr,M,I,B | TC | 4-3½x4½ | D | 4 | 199 | 62-2600 | 53-2600 | 41-1800 | 15.00 | 750 | 91 | 18.3 | 142-1400 | 750 | ..... | VI | 1.62- .375 |
| 19 | DOOC | Own | T,Tr,M,I,B | TC | 4-4x4½ | D | 4 | 228 | 70-2600 | 60-2600 | 47-1800 | 15.00 | 750 | 91 | 15.9 | 162-1400 | 750 | ..... | VI | 1.62- .375 |
| 20 | DOOD | Own | T,Tr,M,I,B | TC | 4-4½x4½ | D | 4 | 257 | 79-2600 | 68-2600 | 53-1800 | 15.00 | 750 | 91 | 14.2 | 182-1400 | 750 | ..... | VI | 1.62- .375 |
| 21 | DJX6D | Own | Tr,M,B,R,T,I | TC | 6-3½x4 | D | 4 | 249 | 93-3000 | 79-3000 | 67-2200 | 15.50 | 825 | 96 | 12.0 | 186-1800 | 900 | ..... | VI | 1.66- .350 |
| 22 | DJXB | Own | T,B,Tr,M,R,I | TC | 6-3½x4½ | D | 4 | 280 | 77-2600 | 66-2600 | 51-1800 | 15.00 | 750 | 87 | 18.6 | 179-1300 | 950 | ..... | VI | 1.62- .375 |
| 23 | DJXC | Own | T,B,Tr,M,R,I | TC | 6-3½x4½ | D | 4 | 298 | 83-2600 | 71-2600 | 59-1800 | 15.00 | 750 | 87 | 16.1 | 206-1300 | 950 | ..... | VI | 1.62- .375 |
| 24 | DJXH | Own | T,B,Tr,M,I | TC | 6-3½x4½ | D | 4 | 298 | 99-2600 | 84-2600 | 67-1800 | 15.00 | 750 | 99 | 14.2 | 234-1400 | 930 | ..... | VI | 1.75- .375 |
| 25 | DWXC | Own | T,B,Tr,M,R,I | TC | 6-4x4½ | D | 4 | 358 | 120-2600 | 102-2600 | 80-1800 | 15.00 | 750 | 98 | 16.9 | 284-1600 | 1350 | ..... | VI | 1.68- .395 |
| 26 | DWXD | Own | T,B,Tr,M,R,I | TC | 6-4½x4½ | D | 4 | 404 | 135-2600 | 115-2600 | 91-1800 | 15.00 | 750 | 99 | 14.8 | 320-1600 | 1350 | ..... | VI | 1.68- .395 |
| 27 | DWXID | Own | T,B,Tr,M,R,I | TC | 6-4½x5 | D | 4 | 428 | 142-2600 | 121-2600 | 95-1800 | 15.00 | 750 | 99 | 14.2 | 333-1600 | 1350 | ..... | VI | 1.68- .395 |
| 28 | DWXIDF | Own | B,M,R | TC | 6-4½x5 | D | 4 | 428 | 142-2600 | 121-2600 | 90-1800 | 15.00 | 750 | 93 | 14.7 | 319-1400 | 1325 | ..... | VI | 1.68- .395 |
| 29 | DRXB | Own | T,B,Tr,M,R,I | TC | 6-4½x5½ | D | 4 | 474 | 134-2200 | 114-2200 | 90-1600 | 15.00 | 750 | 95 | 17.8 | 358-1200 | 1600 | ..... | VI | 2.00- .395 |
| 30 | DRXC | Own | T,B,Tr,M,R,I | TC | 6-4½x5½ | D | 4 | 529 | 147-2200 | 125-2200 | 100-1600 | 15.00 | 750 | 95 | 16.0 | 395-1200 | 1600 | ..... | VI | 2.00- .395 |
| 31 | DFXB | Own | T,B,M,Tr,I | TC | 6-5x6 | D | 4 | 707 | 190-2100 | 162-2100 | 136-1600 | 14.80 | 750 | 95 | 18.4 | 530-1350 | 2500 | ..... | VI | 2.37- .500 |
| 32 | DFXC | Own | T,B,M,Tr,I | TC | 6-5½x6 | D | 4 | 779 | 204-2100 | 173-2100 | 149-1600 | 14.80 | 750 | 95 | 16.8 | 585-1350 | 2500 | ..... | VI | 2.37- .500 |
| 33 | DFXD | Own | T,B,M,Tr,I | TC | 6-5½x6 | D | 4 | 855 | 217-2100 | 184-2100 | 162-1600 | 14.80 | 750 | 94 | 15.4 | 645-1200 | 2500 | ..... | VI | 2.37- .500 |
| 34 | DFXE | Own | T,B,Tr,M,R,I | TC | 6-5½x6 | D | 4 | 995 | 229-2100 | 194-2100 | 170-1600 | 14.80 | 750 | 94 | 13.9 | 680-1200 | 2600 | ..... | VI | 2.37- .500 |
| 35 | DFXH | Own | T,B,Tr,M,R,I | TC | 6-5½x6 | D | 4 | 935 | 260-2100 | 221-2100 | 187-1600 | 14.80 | 750 | 99 | 13.9 | 750-1200 | 2600 | ..... | VI | 2.60- .500 |
| 36 | DFXHF | Own | B,M,R | TC | 6-5½x6 | D | 4 | 935 | 260-2100 | 221-2100 | 187-1600 | 14.80 | 750 | 99 | 13.8 | 750-1200 | 2575 | ..... | ..... | 2.60- .500 |
| 37 | DNX-V8 | Own | T,B,Tr,M,I | TC | 8-6½x6 | D | 4 | 1468 | 400-2100 | 340-2100 | 280-1600 | 14.80 | 750 | 94 | 15.1 | 1100-1200 | 4200 | ..... | VI | 2.87- .500 |
| 38 | DNX-V8S | Own | M,I | TC | 8-6½x6 | D | 4 | 1468 | 500-2100 | 425-2100 | 345-1600 | 14.80 | 750 | 115 | 13.9 | 1320-1400 | 4900 | ..... | VI | 2.87- .500 |
| 39 | Hill 2R | Own | M,I | PC | 2-3½x5½ | D | 4 | 106 | 19-1500 | 17.3-1500 | 16.6-1500 | 16.00 | ..... | 85 | 64.0 | 69-1200 | 1225 | 1300 | VI | 1.37- .372 |
| 40 | 4R | Own | M,I | PC | 4-3½x5½ | D | 4 | 212 | 41-1500 | 36.3-1500 | 33-1500 | 16.00 | ..... | 85 | 44.0 | 142-1200 | 1615 | 1750 | VI | 1.37- .372 |
| 41 | 6R | Own | M,I | PC | 6-3½x5½ | D | 4 | 317 | 63-1500 | 55-1500 | 50-1500 | 16.00 | ..... | 85 | 37.5 | 225-1200 | 2150 | 2300 | VI | 1.37- .372 |
| 42 | International UD6A | Own | Tr,I | PC | 4-3½x5½ | D | 4 | 248 | 47-1600 | 45-1600 | 36-1600 | 16.80 | ..... | 74 | 34.4 | 164-1000 | 1240 | ..... | VI | 1.50- .500 |
| 43 | UD9A | Own | Tr,I | PC | 4-4.4x5½ | D | 4 | 334 | 65-1600 | 62.5-1600 | 50-1600 | 15.70 | ..... | 72 | 30.0 | 229-1075 | 3955 | ..... | VI | 1.66- .500 |
| 44 | UD14A | Own | Tr,I | PC | 4-4⅝x6½ | W | 4 | 461 | 79-1400 | 76-1400 | 60.8-1400 | 15.5 | ..... | 75 | 29.2 | 322- 850 | 1775 | ..... | VI | 1.78- .532 |
| 45 | UD16 | Own | Tr,I | PC | 6-4.4x5.5 | D | 4 | 502 | 103-1800 | 100-1800 | 80-1800 | 16.60 | ..... | 70 | 27.4 | 330-1000 | 2190 | ..... | VI | 1.66- .532 |
| 46 | UD18A | Own | Tr,I | PC | 6-4⅝x6½ | W | 4 | 691 | 131-1600 | 125-1600 | 100-1600 | 15.5 | ..... | 72 | 26.6 | 462- 850 | 2860 | ..... | VI | 1.78- .532 |
| 47 | UD24 | Own | Tr,I | PC | 6-5½x7 | D | 4 | 1091 | 191-1375 | 180-1375 | 144-1375 | 15.20 | ..... | 76 | 27.4 | 229-1075 | 3955 | ..... | VI | 2.31- .625 |
| 48 | Kermath 2-127 | ..... | M | TC | 2-4¼x4½ | D | 4 | 127 | 28-1600 | 27-1800 | 20-1800 | 15.50 | 750 | 78 | 43.5 | 81-1400 | ..... | 870 | VI | 1.62- .375 |
| 49 | 4-226 | ..... | M | TC | 4-4x4½ | D | 4 | 226 | 70-2600 | 60-2600 | 50-2000 | 14.50 | 500 | 66 | 24.5 | 162-1400 | ..... | 1200 | VI | 1.62- .375 |
| 50 | 6-298 | ..... | M | TC | 6-3½x4½ | D | 4 | 298 | 83-2600 | 70-2200 | 60-1900 | 14.50 | 500 | 64 | 21.5 | 208-1500 | ..... | 1355 | VI | 1.62- .375 |
| 51 | 6-529 | ..... | M | TC | 6-4½x5½ | D | 4 | 529 | 147-2200 | 140-2000 | 120-1800 | 14.50 | 750 | 95 | 16.8 | 585-1350 | ..... | 2100 | VI | 2.00- 385 |
| 52 | 6-935 | ..... | M | TC | 6-5½x6 | D | 4 | 935 | 260-2100 | 250-2000 | 190-1600 | 14.50 | 750 | 99 | 24.5 | 753-1200 | ..... | 4200 | VI | 2.37- .500 |
| 53 | Mack END-510 | ..... | T | TC | 6-4¼x5½ | D | 4 | 510 | 138-2400 | 120-2400 | ..... | 14.92 | 1000 | 108 | ..... | 368-1400 | 1994 | ..... | VI | 1.78- .461 |
| 54 | END-672 | Lanova | T,B | TC | 6-4¼x6 | D | 4 | 672 | 165-2000 | 154-2000 | ..... | 14.62 | 1000 | 108 | ..... | 480-1200 | 2301 | ..... | VI | 1.90- .500 |
| 55 | ENDS672 | ..... | B | TC | 6-4¼x6 | D | 4 | 672 | 200-2000 | 180-2000 | ..... | 13.18 | ..... | 131 | ..... | 585-1400 | ..... | ..... | VI | 1.90- .500 |
| 56 | Murphy (S... ME-4 | Own | M,I | DI | 4-5¼x6½ | W | 4 | 675 | ..... | ..... | 105-1200 | 90-1200 | 16.00 | ..... | 88 | 49.5 | 472- 900 | +4450 | ♣6650 | V2 | 1.62- .500 |
| 57 | 11 | Own | M,I | DI | 4-5¼x6½ | W | 4 | 675 | ..... | ..... | 110-1200 | 100-1200 | 16.0 | ..... | 98 | 44.5 | 530- 800 | +4450 | ♣6650 | V2 | 1.62- .500 |
| 58 | *111 | Own | M,I | DI | 4-5¼x6½ | W | 4 | 675 | ..... | ..... | 125-1200 | 115-1200 | 16.0 | ..... | 112 | 40.1 | 560-1050 | +4825 | ♣6825 | V2 | 1.62- .500 |
| 59 | 12 | Own | M,I | DI | 4-6x6½ | W | 4 | 735 | ..... | ..... | 120-1200 | 110-1200 | 16.00 | ..... | 99 | 40.5 | 600- 750 | +4450 | ♣6650 | V2 | 1.62- .500 |
| 60 | *112 | Own | M,I | DI | 4-6x6½ | W | 4 | 735 | ..... | ..... | 140-1200 | 125-1200 | 16.0 | ..... | 112 | 37.0 | 640- 950 | +4825 | ♣6825 | V2 | 1.62- .500 |
| 61 | 20 | Own | M,I | DI | 6-5½x6½ | W | 4 | 927 | ..... | ..... | 150-1200 | 135-1200 | 16.0 | ..... | 96 | 38.5 | 710- 600 | +5200 | ♣8000 | V2 | 1.37- .500 |
| 62 | *120 | Own | M,I | DI | 6-5½x6½ | W | 4 | 927 | ..... | ..... | 160-1200 | 145-1200 | 16.0 | ..... | 103 | 37.8 | 740- 600 | +5465 | ♣8265 | V2 | 1.37- .500 |
| 63 | 21 | Own | M,I | DI | 6-5¾x6½ | W | 4 | 1013 | ..... | ..... | 165-1200 | 150-1200 | 16.00 | ..... | 98 | 34.7 | 825- 600 | +5200 | ♣8000 | V2 | 1.62- .500 |
| 64 | *121 | Own | M,I | DI | 6-5¾x6½ | W | 4 | 1013 | ..... | ..... | 190-1200 | 170-1200 | 16.0 | ..... | 111 | 32.2 | 860- 850 | +5465 | ♣8265 | V2 | 1.62- .500 |
| 65 | 22 | Own | M,I | DI | 6-6x6½ | W | 4 | 1103 | ..... | ..... | 190-1200 | 165-1200 | 16.00 | ..... | 99 | 31.5 | 920- 600 | +5200 | ♣8000 | V2 | 1.62- .500 |
| 66 | *122 | Own | M,I | DI | 6-6x6½ | W | 4 | 1103 | ..... | ..... | 210-1200 | 190-1200 | 16.00 | ..... | 114 | 28.8 | 950- 900 | +5465 | ♣8265 | V2 | 1.62- .500 |
| 67 | Oliver 77 | Lanova | Tr | | 6-3⅛x3¾ | W | 4 | 194 | ..... | ..... | ..... | 40-1600 | 15.75 | 480 | 103 | 16.9 | 146-1000 | 675 | ..... | VI | 1.06- .312 |
| 68 | 88 | Lanova | Tr | TC | 6-3⅛x4 | W | 4 | 231 | ..... | ..... | ..... | 40-1600 | 15.00 | 480 | 104 | 14.9 | 176-1000 | 730 | ..... | VI | 1.22- .359 |
| 69 | P&H 187C | ..... | T,B,Tr,M,R,I | DI | 1-4½x5½ | W | 2 | 87 | 28-1400 | 27-1400 | 20-1200 | 16.00 | 1200 | 76 | 47.5 | 105-800 | 850 | 1100 | VI | No Valves |
| 70 | 287C | ..... | T,B,Tr,M,R,I | DI | 2-4½x5½ | W | 2 | 174 | 54-1400 | 53-1400 | 40-1200 | 16.00 | 1200 | 76 | 25.8 | 210-800 | 1030 | 1635 | VI | No Valves |
| 71 | 387C | ..... | T,B,Tr,M,R,I | DI | 3-4½x5½ | W | 2 | 261 | 83-1400 | 80-1400 | 60-1200 | 16.00 | 1200 | 76 | 21.7 | 230-800 | 1300 | 2120 | VI | No Valves |
| 72 | 487C | ..... | T,B,Tr,M,R,I | DI | 4-4½x5½ | W | 2 | 348 | 110-1400 | 105-1400 | 80-1200 | 16.00 | 1200 | 76 | 19.4 | 440-800 | 1550 | 2530 | VI | No Valves |
| 73 | 687C | ..... | T,B,Tr,M,R,I | DI | 6-4½x5½ | W | 2 | 522 | 165-1400 | 158-1400 | 120-1200 | 16.00 | 1200 | 76 | 15.8 | 630-800 | 1900 | 3000 | VI | No Valves |
| 74 | Red Wing D4-30 | Wau | M | TC | 4-3⅛x3¾ | W | 4 | 129 | 35-2400 | 28-2400 | 22-1800 | 17.00 | 850 | 82 | 66.3 | 90-1400 | ..... | 1460 | VI | 1.25- .312 |
| 75 | D0 | ..... | M | TC | 4-4¼x4½ | D | 4 | 255 | 79-2600 | 75-2400 | 56-1600 | 15.00 | 750 | 91 | 33.9 | 182-1400 | ..... | 1900 | VI | 1.62- .375 |
| 76 | 42-94HP | ..... | M | DI | 4-4x5 | W | 4 | 251 | 85-2200 | 54-2000 | 43-1500 | 5.80 | 500 | 65 | 25.6 | 155-1000 | ..... | 1100 | VI | 1.62- .449 |
| 77 | 55-60HP | ..... | M | DI | 4-4½x5½ | W | 4 | 353 | 82-1600 | 59-1600 | 55-1400 | 5.80 | 500 | 65 | 21.8 | 230- 800 | ..... | 1200 | VI | 1.75- .450 |
| 78 | 100-125HP | ..... | M | DI | 6-4½x5½ | W | 4 | 525 | 128-2100 | 125-2100 | 108-1500 | 5.80 | 500 | 74 | 17.0 | 383-1000 | ..... | 1800 | VI | 1.87- .538 |
| 79 | D6-180 | ..... | M | TC | 6-5½x6 | W | 4 | 779 | 188-2000 | 138-2000 | 102-1400 | 17.50 | 750 | 80 | 42.2 | 600-1000 | ..... | 4310 | VI | 2.25- .500 |
| 80 | D6-200 | ..... | M | TC | 6-6⅜x6½ | W | 4 | 1197 | 225-1600 | 185-1600 | 152-1300 | 16.50 | 750 | 83 | 42.2 | 845-1000 | ..... | 4310 | VI | 2.37- .664 |

For abbreviations, see pages 170 and 171

*For Directory of the Manufacturers listed above, see page 190.*

# ENGINES—*Continued*

| VALVES | PISTONS | | | | PISTON PIN | | CONNECTING RODS | | | MAIN BEARINGS | | INJECTION SYSTEM | | | | | | | | | STARTING METHOD | | OVERALL DIMENSIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Exhaust Port Diameter and Lift (In.) | Material | Length (In.) | Weight with Rings and Pin (Lb.) | No. of Compression Rings | No. of Oil Rings | Diameter and Length (In.) | Locked In— | Material (S. A. E. No.) | Center to Center Length (In.) | Weight with Cap and Bushing (Lb.) | Number | Diameter (In.) | Make of Pump | Make of Valve | Valve Type—Open or Closed | Orifice | Pressure—Nozzle Opening (Lb. per Sq. In.) | Air Cleaner—Make | Fuel Filter—Make | Lubricant Filter—Make | Minimum Recommended Cetane Number of Fuel | Make | Type | Length—Fan to Flywheel (In.) | Width (In.) | Height—To Top of Air Cleaner (In.) | Line Number |
| 1.25- .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 4 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | Vwg 51½ | 32½ | Vwg40½ | 1 |
| 1.25- .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 5 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | Vwg 56⅞ | 33½ | Vwg40½ | 2 |
| 1.25- .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 7 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | Vwg 68⅝ | 33½ | Vwg40½ | 3 |
| 1.25- .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 14 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 70⅜ | 56 | 54⅛‡‡ | 4 |
| 1.25- .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 14 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 129 | 37¼ | 57⅛ | 5 |
| 1.25- .383 | AT | 6.00 | 7.70 | 4 | 2 | 1.50-3.62 | F | 1141A | 10.12 | 6.16 | 29 | 3.50 | Own | Own | C | Mu | 600 | AC | AC | AC | 45 | DR | Ele | 128 | 56 | 54⅛‡‡ | 6 |
| 1.88- .473 | AT | 6.50 | 10.10 | 4 | 2 | 1.62-4.34 | F | 1141A | 10.12 | 7.36 | 7 | 4.00 | Own | Own | C | Mu | .... | AC | AC | AC | 45 | DR | Ele | 69¼ | 31¼ | 49 | 7 |
| 1.09- .272 | AA | 3.75 | ..... | 3 | 2 | 1.12-2.75 | F | 1035 | 7.00 | ..... | 3 | 2.47 | AB | AB | .... | Pi | 1800 | Own | ACB | Mic | 45 | AL | Ele | 49⅛ | 29⅛ | 30½ | 8 |
| 1.25- .248 | AA | 4.31 | ..... | 3 | 2 | 1.25-3.31 | F | 1035 | 9.80 | ..... | 3 | 2.87 | AB | AB | .... | Pi | 1800 | Own | ACB | Mic | 45 | AL | Ele | 54½ | 21½ | 34⅞ | 9 |
| 1.66- .546 | AA | 6.00 | ..... | 3 | 2 | 1.50-4.00 | F | 1035 | 10.90 | 4.72 | 5 | 3.37 | AB | AB | .... | Pi | 1800 | Own | ACB | Mic | 45 | DA | Ele | 68⅛ | 26 | 40½ | 10 |
| 1.25- .315 | AA | ..... | 2.25 | 4 | 1 | 1.31-2.96 | F | 4140 | 7.00 | 2.75 | 2 | ..... | AB | AB | .... | Pi | 1800 | AM | Pur | Pur | 38 | AL | Ele | 26 | 18 | 24 | 11 |
| 1.62- .313 | Alu | 5.25 | 4.00 | 4 | 1 | 1.37-3.40 | F | 1045 | 9.00 | 4.67 | 2 | ..... | AB | AB | .... | Pi | 1600 | AM | Pur | Pur | 38 | AL | Ele | 24.13 | 24 | 28.87 | 12 |
| 1.62- .315 | Alu | 5.25 | 4.00 | 4 | 1 | 1.37-3.40 | F | 1045 | 9.00 | 4.67 | 2 | ..... | AB | AB | .... | Pi | 1600 | AM | Pur | Pur | 38 | AL | Ele | 41¼ | 23 | 31¼ | 13 |
| 1.12- .375 | Alu | 4.84 | 4.00 | 4 | 2 | 1.18-3.45 | F | CNM | 8.00 | 5.31 | 2 | 3.81 | AB | AB | C | Pi | 1450 | ..... | ..... | ..... | 45 | DR | EAH | 23½ (2) | 19½ | 36½ | 14 |
| 1.12- .375 | Alu | 4.84 | 4.47 | 4 | 2 | 1.18-3.70 | F | CNM | 8.00 | 5.31 | 2 | 3.81 | AB | AB | C | Pi | 1450 | ..... | ..... | ..... | 45 | DR | EAH | 23½ (2) | 19½ | 36½ | 15 |
| 1.12- .350 | Alu | 4.03 | 3.20 | 3 | 2 | 1.12-2.62 | F | CNM | 7.75 | 4.20 | 5 | 2.75 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEL | 29½ (2) | 21½ | 30½ | 16 |
| 1.12- .350 | Alu | 4.03 | 3.20 | 3 | 2 | 1.12-2.87 | F | CNM | 7.75 | 4.20 | 5 | 2.75 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEL | 29½ (2) | 21½ | 30½ | 17 |
| 1.12- .375 | Alu | 4.84 | 3.56 | 4 | 2 | 1.18-3.20 | F | CNM | 8.00 | 5.31 | 5 | 3.00 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 32½ (2) | 22¼ | 36 | 18 |
| 1.12- .375 | Alu | 4.84 | 4.00 | 4 | 2 | 1.18-3.45 | F | CNM | 8.00 | 5.31 | 5 | 3.00 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 32½ (2) | 22¼ | 36 | 19 |
| 1.12- .375 | Alu | 4.84 | 4.47 | 4 | 2 | 1.18-3.70 | F | CNM | 8.00 | 5.31 | 5 | 3.00 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 32½ (2) | 22¼ | 36 | 20 |
| 1.12- .350 | Alu | 4.03 | 3.20 | 3 | 2 | 1.12-2.87 | F | CNM | 7.75 | 4.20 | 7 | 2.75 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 38½ (2) | 23½ | 37⅛ | 21 |
| 1.12- .375 | Alu | 4.84 | 3.12 | 4 | 2 | 1.18-2.95 | F | CNM | 8.00 | 5.31 | 7 | 3.00 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 39 (2) | 22½ | 32½ | 22 |
| 1.12- .375 | Alu | 4.84 | 3.56 | 4 | 2 | 1.18-3.20 | F | CNM | 8.00 | 5.31 | 7 | 3.00 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 39 (2) | 22½ | 32½ | 23 |
| 1.31- .375 | Alu | 4.84 | 3.58 | 3 | 2 | 1.18-3.20 | F | CNM | 8.00 | 5.31 | 7 | 3.00 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 39 (2) | 22½ | 34⅜ | 24 |
| 1.25- .395 | Alu | 4.84 | 4.00 | 3 | 2 | 1.50-3.62 | F | CNM | 8.50 | 7.31 | 7 | 3.50 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 44½ (2) | 27 | 42½ | 25 |
| 1.25- .395 | Alu | 4.84 | 4.47 | 3 | 2 | 1.50-3.62 | F | CNM | 8.50 | 7.00 | 7 | 3.50 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 44½ (2) | 27 | 42½ | 26 |
| 1.25- .395 | Alu | 4.84 | 4.47 | 3 | 2 | 1.50-3.62 | F | CNM | 8.50 | 7.00 | 7 | 3.50 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 44½ (2) | 27 | 42½ | 27 |
| 1.25- .395 | Alu | 4.84 | 4.47 | 3 | 2 | 1.50-3.62 | F | CNM | 8.50 | 7.00 | 7 | 3.50 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 55½ (2) | 39½ | 173½ | 28 |
| 1.37- .395 | Alu | 6.84 | 7.09 | 4 | 2 | 1.62-3.75 | F | CNM | 9.37 | 8.59 | 7 | 3.50 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 46½ (2) | 26½ | 38½ | 29 |
| 1.37- .395 | Alu | 6.84 | 7.93 | 4 | 2 | 1.62-3.93 | F | CNM | 9.37 | 8.59 | 7 | 3.50 | AB | AB | C | Pi | 1650 | ..... | ..... | ..... | 45 | LDA | AEG | 46½ (2) | 26½ | 38½ | 30 |
| 1.62- .500 | Alu | 7.53 | 9.94 | 4 | 2 | 2.00-4.18 | F | CNM | 12.00 | 13.75 | 7 | 4.50 | AB | AB | C | Pi | 2000 | ..... | ..... | ..... | 45 | LDA | AEG | 61½ (2) | 30½ | 46½ | 31 |
| 1.62- .500 | Alu | 7.53 | 11.69 | 4 | 2 | 2.00-4.42 | F | CNM | 12.00 | 13.75 | 7 | 4.50 | AB | AB | C | Pi | 2000 | ..... | ..... | ..... | 45 | LDA | AEG | 61½ (2) | 30½ | 46½ | 32 |
| 1.62- .500 | Alu | 7.53 | 12.37 | 4 | 2 | 2.00-4.65 | F | CNM | 12.00 | 13.75 | 7 | 4.50 | AB | AB | C | Pi | 2000 | ..... | ..... | ..... | 45 | LDA | AEG | 61½ (2) | 30½ | 46½ | 33 |
| 1.62- .500 | Alu | 7.53 | 12.34 | 4 | 2 | 2.00-4.65 | F | CNM | 12.00 | 13.75 | 7 | 4.50 | AB | AB | C | Pi | 2000 | ..... | ..... | ..... | 45 | LDA | AEG | 61½ (2) | 30½ | 46½ | 34 |
| 1.90- .500 | Alu | 7.53 | 12.60 | 4 | 2 | 2.00-4.90 | F | CNM | 12.00 | 13.75 | 7 | 4.50 | AB | AB | C | Pi | 2000 | ..... | ..... | ..... | 45 | LDA | AEG | 61½ (2) | 30½ | 46½ | 35 |
| 1.62- .500 | Alu | 7.53 | 12.34 | 4 | 2 | 2.00-4.65 | F | CNM | 12.00 | 13.75 | 7 | 4.50 | AB | AB | C | Pi | 2000 | ..... | ..... | ..... | 45 | LDA | AEG | 61½ (2) | 30½ | 47¾ | 36 |
| 2.12- .500 | Alu | 7.53 | 12.90 | 4 | 2 | 2.00-5.40 | F | CNM | 13.25 | ..... | 5 | 4.50 | AB | AB | C | Pi | 2000 | ..... | ..... | ..... | 45 | LDA | AEG | 61½ (2) | 30 | 31½ | 36 |
| 2.12- .500 | Alu | 7.53 | 12.90 | 4 | 2 | 2.00-5.40 | F | CNM | 13.25 | ..... | 5 | 4.50 | AB | AB | C | Pi | 2000 | ..... | ..... | ..... | 45 | LD | AEG | 58½ (2) | 42 | 58¾ | 37 |
| | | | | | | | | | | | | | | | | | | | | | 45 | LD | AEG | 67 (2) | 42 | 58¾ | 38 |
| 1.37- .372 | Lyn | 4.87 | 2.83 | 3 | 2 | 1.50-2.72 | F | 4140 | 13.25 | 7.3 | 3 | 2.93 | AB | A-E | C | Pi | 1800 | Uni | Fra | Cun | 45 | AL | E-H | 35 | 25 | 40 | 39 |
| 1.37- .372 | Lyn | 4.87 | 2.83 | 3 | 2 | 1.50-2.72 | F | 4140 | 13.25 | 7.3 | 5 | 2.93 | AB | A-E | C | Pi | 1800 | Uni | Fra | Cun | 45 | AL | Ele | 47½ | 25 | 40 | 40 |
| 1.37- .372 | Lyn | 4.87 | 2.83 | 3 | 2 | 1.50-2.72 | F | 4140 | 13.25 | 7.3 | 7 | 2.93 | AB | A-E | C | Pi | 1800 | Uni | Fra | Cun | 45 | AL | Ele | 58 | 27 | 45 | 41 |
| 1.31- .500 | AA | 5.70 | 4.41 | 3 | 2 | 1.31-3.25 | F | 1040 | 10.00 | 8.12 | 5 | 3.75 | Own | Own | C | Si | 700 | Don | Pur | Pur | .... | Own | Ha | 38½ | 23 | 39⅞ | 42 |
| 1.47- .500 | AA | 6.44 | 6.25 | 3 | 2 | 1.50-3.71 | F | 1040 | 11.00 | 9.34 | 5 | 4.12 | Own | Own | C | Si | 700 | Don | Pur | Pur | .... | Own | Ha | 41½ | 24 | 42½ | 43 |
| 1.53- .532 | AA | 6.19 | 7.36 | 4 | 2 | 1.62-4.10 | F | 1040 | 13.25 | 12.72 | 5 | 3.25 | Own | Own | C | Si | 700 | Don | Pur | Pur | .... | Own | Ha | 47⅞ | 27¼ | 47½ | 44 |
| 1.41- .532 | AA | 6.44 | 6.25 | 3 | 2 | 1.50-3.71 | F | 1040 | 11.00 | 9.34 | 7 | 3.56 | Own | Own | C | Si | 700 | Don | Pur | Pur | .... | Own | Ha | 56½ | 28½ | 44½ | 45 |
| 1.53- .532 | AA | 6.19 | 7.36 | 4 | 2 | 1.62-4.10 | F | 1040 | 13.25 | 12.72 | 7 | 3.50 | Own | Own | C | Si | 700 | Don | Pur | Pur | .... | Own | Ha | 60¼ | 29¼ | 49¼ | 46 |
| 1.88- .625 | AA | 7.50 | 12.75 | 3 | 2 | 1.88-5.00 | F | 1040 | 13.25 | 16.73 | 7 | 4.12 | Own | Own | C | Si | 700 | Don | Pur | Pur | .... | DR | GS | 70 | 30½ | 54½ | 47 |
| 1.12- .375 | Alu | 4.84 | 4.00 | 4 | 2 | ..... | ..... | CNM | 8.00 | 5.31 | 2 | ..... | AB | AB | C | Pi | 1650 | AC | Pur | DsL | .... | DR | Ele | 41⅞ | 23 | 30½ | 48 |
| 1.12- .375 | Alu | 4.84 | 4.00 | 4 | 2 | ..... | ..... | CNM | 8.00 | 5.31 | ..... | ..... | AB | AB | C | Pi | 1650 | AC | Pur | Pur | .... | DR | Ele | 47½ | 22½ | 33 | 49 |
| 1.12- .375 | Alu | 4.84 | 3.56 | 4 | 2 | ..... | ..... | CNM | 8.00 | 5.31 | ..... | ..... | AB | AB | C | Pi | 1650 | AC | Pur | Pur | .... | DR | Ele | 54½ | 22½ | 33 | 50 |
| 1.37- .395 | Alu | 6.84 | 7.09 | 4 | 2 | 1.62-3.93 | F | CNM | 9.37 | 8.59 | 7 | 3.50 | AB | AB | C | Pi | 1650 | AM | Pur | Pur | .... | DR | Ele | 60⅞ | 27½ | 37⅛ | 51 |
| 1.62- .500 | Alu | 7.53 | 12.39 | 4 | 2 | 2.00-4.65 | F | CNM | 12.00 | 13.75 | 7 | 4.45 | AB | AB | C | Pi | 2000 | AM | Pur | Pur | .... | DR | Ele | 68⅛ | 34¼ | 54⅝ | 52 |
| 1.41- .458 | AA | 5.17 | 4.62 | 3 | 2 | 1.43-3.62 | F | CM | 10.50 | 5.80 | 7 | 3.50 | AB | AB | C | Pi | 1700 | Vor | Pur | P-L | 45 | LN | Ele | 47.46 | 32.43 | 42.18 | 53 |
| 1.68- .500 | AA | 5.62 | 6.50 | 3 | 2 | 1.62-4.21 | F | CM | 11.25 | 7.70 | 7 | 4.00 | AB | AB | C | Pi | 1700 | Vor | Pur | P-W | 45 | L-D | Ele | 55.93 | 31.28 | 46.28 | 54 |
| 1.68- .500 | AA | 5.62 | 7.74 | 3 | 2 | 1.62-4.34 | F | CM | 11.25 | 7.70 | 7 | 4.00 | AB | AB | C | Pi | 1700 | Vor | Pur | P-L | 45 | DR | Ele | 59.62 | 35.50 | 46.28 | 55 |
| 1.62- .500 | CI | 7.75 | 22.2 | 4 | 2 | 2.12-4.73 | F | 1045 | 12.50 | 17.75 | 5 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 57¼ | 37 | 63⅞ | 56 |
| 1.62- .500 | CI | 7.75 | 22.2 | 4 | 2 | 2.12-4.73 | F | 1045 | 12.50 | 17.75 | 6 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 58½ | 37 | 62⅞ | 57 |
| 1.62- .500 | CI | 7.75 | 22.2 | 4 | 2 | 2.12-4.73 | F | 1045 | 12.50 | 17.75 | 5 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 58½ | 37 | 62⅞ | 58 |
| 1.62- .500 | CI | 7.75 | 23.7 | 4 | 2 | 2.12-4.98 | F | 1045 | 12.50 | 17.75 | 5 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 58½ | 37 | 62⅞ | 59 |
| 1.62- .500 | CI | 7.75 | 23.7 | 4 | 2 | 2.12-4.98 | F | 1045 | 12.50 | 17.75 | 5 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 58½ | 37 | 62⅞ | 60 |
| 1.37- .500 | CI | 7.75 | 19.7 | 4 | 2 | 2.12-4.73 | F | 1045 | 12.50 | 17.75 | 7 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 75⅞ | 37 | 60½ | 61 |
| 1.37- .500 | CI | 7.75 | 19.7 | 4 | 2 | 2.12-4.73 | F | 1045 | 12.50 | 17.75 | 7 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 75⅞ | 37 | 54½ | 62 |
| 1.62- .500 | CI | 7.75 | 22.2 | 4 | 2 | 2.12-4.73 | F | 1045 | 12.50 | 17.75 | 7 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 76⅛ | 37 | 60½ | 63 |
| 1.62- .500 | CI | 7.75 | 22.2 | 4 | 2 | 2.12-4.73 | F | 1045 | 12.50 | 17.75 | 7 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 76⅛ | 37 | 54½ | 64 |
| 1.62- .500 | CI | 7.75 | 23.7 | 4 | 2 | 2.12-4.98 | F | 1045 | 12.50 | 17.75 | 7 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 76⅛ | 37 | 60½ | 65 |
| 1.62- .500 | CI | 7.75 | 23.7 | 4 | 2 | 2.12-4.98 | F | 1045 | 12.50 | 17.75 | 7 | 4.00 | Own | Own | ... | Mu | .... | Don | Own | Own | 45 | ..... | AEG | 76⅛ (2) | 37 | 54½ | 66 |
| .94- .281 | IA | 4.19 | 3.88 | 3 | 1 | 1.25-2.50 | F | 1045 | 6.75 | 1.97 | 4 | 2.25 | AB | AB | C | Pi | 1750 | Don | F-A | Mic | 40 | DR | Ele | 39⅞ | 8 | 29⅞ | 67 |
| 1.03- .382 | IA | 4.19 | 4.32 | 3 | 1 | 1.25-2.76 | F | 1045 | 6.75 | 2.56 | 4 | 2.62 | AB | AB | C | Pi | 1750 | Don | F-A | Mic | 40 | DR | Ele | 41½ | 18 | 31¾ | 68 |
| 2.30- .520 | AA | 6.38 | 6.75 | 3 | 2 | 1.75-3.85 | F | 1141 | 11.87 | 8.25 | 2 | 4.00 | BB | BB | C | Si | 3000 | Don | FF | WIP | 35 | AI | A-EI | 25½ | 23½ | 40⅞ | 69 |
| 2.30- .520 | AA | 6.38 | 6.75 | 3 | 2 | 1.75-3.85 | F | 1141 | 11.87 | 8.25 | 3 | 4.00 | BB | BB | C | Si | 3000 | Don | FF | WIP | 35 | AI | A-EI | 32½ | 28½ | 40⅞ | 70 |
| 2.30- .520 | AA | 6.38 | 6.75 | 3 | 2 | 1.75-3.85 | F | 1141 | 11.87 | 8.25 | 4 | 4.00 | BB | BB | C | Si | 3000 | Don | FF | WIP | 35 | AI | A-EI | 32½ | 28½ | 40⅞ | 71 |
| 2.30- .520 | AA | 6.38 | 6.75 | 3 | 2 | 1.75-3.85 | F | 1141 | 11.87 | 8.25 | 5 | 4.00 | BB | BB | C | Si | 3000 | Don | FF | WIP | 35 | AI | A-EI | 45½ | 28½ | 40⅞ | 72 |
| 2.30- .520 | AA | 6.38 | 6.75 | 3 | 2 | 1.75-3.85 | F | 1141 | 11.87 | 8.25 | 7 | 4.00 | BB | BB | C | Si | 3000 | Don | FF | WIP | 35 | AI | A-EI | 59⅛ | 28¼ | 40⅞ | 73 |
| 1.00- .281 | CI | 4.75 | 3.28 | 3 | 2 | 1.25-2.75 | F | 1045 | 6.75 | 1.97 | 3 | 2.25 | AB | AB | C | Pi | 1800 | Opt | Opt | Opt | 45 | DR | Ele | 42⅞ | 24½ | 29½ | 74 |
| 1.12- .375 | Alu | 4.84 | 4.47 | 4 | 2 | 1.18-3.70 | F | CNM | 8.00 | 5.31 | 5 | 3.00 | AB | AB | C | Pi | 1650 | ..... | Pur | Pur | 45 | LN | Ele | 50½ | 28¾ | 35⅞ | 75 |
| 1.25- .453 | CI | 5.12 | 4.30 | 3 | 1 | 1.12-3.08 | F | 1045 | 8.75 | 3.56 | 3 | 2.62 | AB | Hes | O | Mu | 750 | ..... | Mic | Mic | .... | DR | Ele | 48⅞ | 24 | 33⅞ | 76 |
| 1.50- .450 | CI | 5.96 | 6.00 | 3 | 1 | 1.31-4.00 | F | 1045 | 10.50 | 5.30 | 3 | 2.37 | AB | Hes | O | Mu | 750 | ..... | Mic | Mic | 40 | AL | Ele | 52½ | 21¼ | 38⅛ | 77 |
| 1.37- .469 | Alu | 6.50 | 4.00 | 3 | 1 | 1.37-3.87 | F | 1045 | 10.25 | 5.31 | 7 | 3.25 | AB | Hes | O | Mu | 750 | ..... | Mic | Mic | 60 | DR | Ele | 75½ | 29 | 41⅞ | 78 |
| 1.81- .531 | Alu | 7.25 | ..... | 4 | 2 | 1.87-4.50 | F | 4145 | 11.75 | ..... | 7 | 4.25 | AB | AB | C | Pi | 2000 | Opt | Com | Mic | 50 | DR | Ele | 74½ | 32½ | 47⅞ | 79 |
| 2.00- .656 | Alu | ..... | ..... | 3 | 2 | 2.18-5.37 | F | 4145 | 13.25 | ..... | 7 | 4.75 | AB | AB | C | Pi | 2000 | Opt | Com | Mic | 50 | DR | Ele | 85⅞ | 34½ | 51⅛ | 80 |

For abbreviations, see pages 170 and 171

**For Directory of the Manufacturers listed above, see page 190.**

| Line Number | ENGINE MAKE AND MODEL | Built Under License from | GENERAL: Designed for | Type | Number of Cylinders Bore and Stroke (in.) | Cylinder Liners—Type | Cycle | Piston Displacement (Cu. in.) | With Bare Engine: Maximum Brake HP at Specified R.P.M. | With Standard Accessories: Max. Intermittent Hp. at Specified R.P.M. | With Standard Accessories: Continuous Sustained Hp. at Specified R.P.M. | Compression Ratio—to 1 | Max. Combustion Pressure (Lb. per Sq. In.) | B.M.E.P. at Continuous Hp. (Lb. per Sq. In.) | Weight per Continuous Hp. (Lb.) ♣ | Max. Torque in Lb. Ft. at Specified R.P.M. | Shipping Weight (Lb.): Automotive or Industrial | Shipping Weight (Lb.): Marine | VALVES: Arrangement | VALVES: Intake Port Diameter and Lift (in.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Scripps 7000-1, 2, 3 | | M | TC | 4-4½x4½ | D | 4 | 255 | 79-2600 | 68-2600 | 53-1800 | 15.00 | 750 | 91 | 23.6 | 185-1400 | | 1495 | VI | 2.37-.728 |
| 2 | 8500-1, 2, 3 | | M | TC | 6-3½x4½ | D | 4 | 298 | 84-2600 | 71-2600 | 59-1800 | 15.00 | 750 | 88 | 25.2 | 208-1500 | | 1485 | VI | 1.62-.375 |
| 3 | 4-166 | | M | TC | 4-3½x4 | D | 4 | 166 | | 48-3000 | 38-2000 | 15.00 | 825 | 88 | 25.8 | 122-1600 | | 980 | VI | 1.56-.350 |
| 4 | 6-935 | | M | TC | 6-5¼x6 | D | 4 | 935 | | 220-2000 | 185-1600 | 14.80 | 750 | 98 | 24.8 | 635-1200 | | 4600 | VI | 2.60-.500 |
| 5 | Sheppard 11 and 14C | | Tr,M,I | PC | 1-3x4 | N | 4 | 28.0 | 5.4-1900 | 4.8-1900 | 3.50-1800 | 18.0 | 650 | 55 | 94.0 | 11-1500 | 330 | 425 | VI | 1.09-.209 |
| 6 | 7D, E | | I,Tr | PC | 1-4¼x5 | W | 4 | 71.0 | 15-2000 | 12-1800 | 11-1800 | 18.0 | 625 | 68 | 79.5 | 55-1000 | 875 | | VI | 1.37-.313 |
| 7 | 13D, E & F | | Tr,M,I | PC | 2-4¼x5 | W | 4 | 142 | 33-2000 | 25-1800 | 22-1800 | 18.0 | 625 | 68 | 47.7 | 106-1200 | 1050 | 1500 | VI | 1.37-.313 |
| 8 | 8D, E & F | | Tr,M,I | PC | 3-4¼x5 | W | 4 | 213 | 50-2000 | 38-1800 | 34-1800 | 18.0 | 625 | 69 | 38.9 | 161-1200 | 1325 | 1750 | VI | 1.37-.313 |
| 9 | 12D, E & F | | T,M,I | PC | 6-4¼x5 | W | 4 | 426 | 100-2000 | 75-1800 | 67-1800 | 18.0 | 625 | 70 | 25.6 | 325-1200 | 1790 | 2330 | VI | 1.37-.313 |
| 10 | Sterling VD6 | | M,R,I | | 6-8x9 | W | 4 | 2714 | | 330-1200 | 325-1200 | 14.00 | 1000 | 80 | 28.2 | 1420- | 9160 | 8850 | VI | 2.37-.728 |
| 11 | VDS6S | | M,R,I | DI | 6-8x9 | W | 4 | 2714 | 750-1200† | 660-1200 | 563-1200 | 11.35 | 1340 | 137 | 17.4 | | 9775 | 12770 | VI | 2.37-.728 |
| 12 | VDS6S | | M,R,I | DI | 6-8x9 | W | 4 | 3619 | 1000-1200† | 850-1200 | 750-1200 | 11.35 | 1340 | 137 | 16.2 | 3310-1000 | 12100 | 17000 | VI | 2.37-.728 |
| 13 | Viking DB4 | | M,I | TC | 4-5½x7 | W | 4 | 665 | | 90-1200 | 76-1200 | 11.80 | 750 | 75 | 50.7 | 475-1200 | 4550 | 4400 | VI | 2.19-.649 |
| 14 | Viking DB6 | | M,I | TC | 6-5½x7 | W | 4 | 998 | | 170-1500 | 114-1200 | 11.80 | 750 | 75 | 45.5 | 737-1000 | 5950 | 5350 | VI | 2.19-.649 |
| 15 | Viking DB8 | | M,I | TC | 8-5½x7 | W | 4 | 1330 | | 230-1500 | 152-1200 | 11.80 | 750 | 75 | 45.0 | 940-1000 | 7650 | 6600 | VI | 2.19-.649 |
| 16 | Superior (6-40 | | M,I | DI | 6-8½x10½ | W | 4 | 3575 | | | 325-900 | 12.20 | 800 | 80 | 44.5 | | 14500 | 16000 | VI | 3.12-.875 |
| 17 | 40X | | M,I | DI | 6-8½x10½ | W | 4 | 3575 | | | 490-900 | 12.20 | 900 | 120 | 31.6 | | 15500 | 17000 | VI | 3.12-.775 |
| 18 | 40L | | R | DI | 6-8½x10½ | W | 4 | 3575 | | | 375-1100 | 12.00 | 800 | 76 | 50.6 | | 19000 | | V4 | 3.06-.697 |
| 19 | 40LX | | R | DI | 6-8½x10½ | W | 4 | 3575 | | | 500-1100 | 12.00 | 860 | 102 | 46.0 | | 23000 | | V4 | 3.06-.620 |
| 20 | 40ALX | | R | DI | 6-8½x10½ | W | 4 | 3575 | | | 675-1100 | 12.00 | 1200 | 136 | 34.1 | | 23000 | | V4 | 3.06-.620 |
| 21 | Waukesha 180DAC | Own | T,Tr,I | TC | 4-3⅞x3¾ | W | 4 | 129 | 35-2400 | 28-2400 | 22.4-1800 | 17.00 | 850 | 82 | 23.2 | 90-1400 | 520 | | VI | 1.25-.312 |
| 22 | 190DLC | | T,Tr,I | TC | 6-3⅜x4 | W | 4 | 285 | 64-2200 | 53-1800 | 42.5-1800 | 15.3 | 750 | 71 | | 184-1200 | | | VI | 1.37-.359 |
| 23 | 140HK | Hes | I | DI | 6-4½x5½ | W | 4 | 525 | 128-2250 | 109-2250 | 75-1500 | 5.80 | 500 | 74 | 21.0 | 383-1000 | 1550 | | VI | 1.87-.531 |
| 24 | 148DK | | T,I | TC | 6-5¼x6 | W | 4 | 779 | 168-2000 | 136-2000 | 102-1400 | 17.5 | 750 | 80 | 21.0 | 530-1200 | 2150 | | VI | 2.25-.562 |
| 25 | 145HK | Hes | I | DI | 6-5¼x6 | W | 4 | 779 | 174-2000 | 148-2000 | 106-1400 | 5.60 | 500 | 77 | 17.6 | 559- 900 | 1868 | | VI | 1.87-.594 |
| 26 | 6WAKH | Hes | I | DI | 6-6¼x6½ | W | 4 | 1197 | 202-1800 | 162-1600 | 139-1300 | 5.20 | 500 | 71 | 23.0 | 611- 700 | 3200 | | VI | 2.37-.656 |
| 27 | 6WAKD | | T,I | TC | 6-6¼x6½ | W | 4 | 1197 | 225-1600 | 185-1600 | 152-1300 | 16.5 | 750 | 83 | 22.3 | 845- 900 | 3400 | | VI | 2.37-.656 |
| 28 | 6NKH | Hes | I | DI | 6-7x8½ | W | 4 | 1962 | 226-1050 | 187-1050 | 160- 950 | 5.42 | 500 | 68 | 38.8 | 1350- 650 | 6200 | | VI | 2.80-.713 |
| 29 | 6LRD | | I | TC | 6-8½x8½ | W | 4 | 2894 | 388-1050 | 358-1050 | 335- 900 | 15.00 | 800 | 110 | 35.8 | 2150- 600 | 12000 | | VI | 3.75-.704 |
| 30 | 135DK | | T,B,Tr | TC | 6-4¼x5 | D | 4 | 426 | 136-2800 | 123-2800 | 109-2800 | 17.50 | | 73 | | 320-1400 | | | VI | -.453 |

**ABBREVIATIONS**

■—Without fan or muffler.
♣—Based on automotive or industrial weight.
‡—With full equipment but without radiator or fan.
•—Supercharged.
*Bottom of gear box to top of heat exchanger.
••—To top of valve cover.
♦—Includes radiator.
*—146-2000 for buses
†—With all accessories
†—Includes reverse and reduction gear.
‡‡—Bottom of base to highest point on engine.
(1)—Horizontal engine
(2)—Fan to flywheel housing.
(3)—To top of water outlet (highest point).
(5)—All models are available with governed speed of 1400 RPM
(6)—All engines also built in 8-cyl. models
(11)—Includes radiator.
(12)—From bottom of pan to air cleaner mounting flange.
(15)—Including radiator and gear box.
A—Air.
AA—Aluminum Alloy.
AB—American Bosch.
AC—AC Spark Plug Co.
ACB—AC or Bosch.
Ach—Air chamber.
A-E—American Bosch or Ex-Cell-O Corp.
AEG—Air, electric or auxiliary gasoline engine.
A-El—Air or Electric.
Al—Auto-Lite (electric), Ingersoll-Rand (air).
AL—Electric Auto-Lite Co.
Alu—Aluminum.
AM—Air-Maze Corp.
AT—Arma Steel, tin plated.
B—Buses.
BB—Bendix or Bosch.
B-D—Bosch or Demco
B-P—Bosch or Purolator.
Bur—Burgess
C—Closed.
CB—Cuno and Bosch
CI—Cast Iron.
CM—Chromium molybdenum.
CNM—Chrome-nickel molybdenum.
Com—Commercial Filters Corp.
Cun—Cuno Engineering Corp.
D—Dry liners used.
DA—Delco-Remy and Auto-Lite.
DeL—DeLuxe Products Corp.
DI—Direct injection.
D-N—Delco-Remy or Novo.

# DIESEL ENGINES FOR USE IN DIESEL-ELECTRIC LOCOMOTIVES

These Diesel engines are in addition to the Automotive Diesels shown on pages 166-171.

| ENGINE MAKE AND MODEL | Cylinder Arrangement | Cycle | No. of Cylinders, Bore and Stroke (In.) | Displacement (Cu. In.) | Compression Ratio | Maximum Brake HP at Specified RPM | Continuous HP at Specified RPM | Supercharger Used | Weight (Lb.) | OVERALL DIMENSIONS (In.): Length | Width | Height |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alco | V | 4 | 12-9x10½ | 8016 | 13.00 | †1600 | -1000 | Yes | | | | |
| | V | 4 | 16-9x10½ | 10688 | 13.00 | †2250 | -1000 | Yes | | | | |
| | I | 4 | 8-12¾x13 | 9550 | 12.30 | †1000 | -740 | Yes | | | | |
| | I | 4 | 6-12¾x13 | 9550 | 10.86 | 1625 | -740 | No | | | | |
| Baldwin 606 | I | 4 | 6-12¾x15½ | 11880 | 13.45 | 1315-625 | | Yes | 42850 | 206⅝ | 62½ | 97⅛ |
| 608 | I | 4 | 8-12¾x15½ | 15840 | 13.45 | 1715-625 | | Yes | 53440 | 246⅜ | 69½ | 97⅛ |
| Cooper-Bessemer FWL-6T | I | 4 | 6-9x10½ | 4008 | 12.70 | 825-1000 | 825-1000 | Yes | 22000 | 134 | 59 9/16 | 80½ |
| FVL-6T | V | 4 | 6-9x10½ | 4008 | 12.70 | 825-1000 | 825-1000 | Yes | 18500 | 83⅝ | 77½ | 75⅜ |
| FWL-8T | I | 4 | 8-9x10½ | 5344 | 12.70 | 1100-1000 | 1100-1000 | Yes | 25000 | 164 | 59 9/16 | 80½ |
| FVL-8T | V | 4 | 8-9x10½ | 5344 | 12.70 | 1100-1000 | 1100-1000 | Yes | 21500 | 99⅛ | 77½ | 75⅜ |
| FVL-12T | V | 4 | 12-9x10½ | 8016 | 12.70 | 1650-1000 | 1650-1000 | Yes | 28500 | 128½ | 77½ | 75⅜ |
| FVL-16T | V | 4 | 16-9x10½ | 10688 | 12.70 | 2200-1000 | 2200-1000 | Yes | 35000 | 159½ | 77½ | 75⅜ |
| Electro-Motive 6-567 | V | 2 | 6-8½x10 | 3402 | 16.00 | †600 | -800 | Yes | 14250 | 114⅛ | 64⅞ | 84 1/16 |
| 8-567 | V | 2 | 8-8½x10 | 5103 | 16.00 | †800 | -800 | Yes | 19500 | | 64⅞ | 84 1/16 |
| 12-567 | V | 2 | 12-8½x10 | 6804 | 16.00 | †1200 | -800 | Yes | 24700 | 174 | 64⅞ | 91 9/16 |
| 16-567 | V | 2 | 16-8½x10 | 9072 | 16.00 | †1500 | -800 | Yes | 29950 | 212 11/16 | 62 3/16 | 91 9/16 |
| Fairbanks-Morse 6-38D8⅛ | O | 2 | 6-8⅛x10 | 6222 | 16.10 | 1275-850 | 1275-850 | No | 27200 | 174½ | 67 | 109 9/32 |
| 8-38D8⅛ | O | 2 | 8-8⅛x10 | 8296 | 16.10 | 1720-850 | 1720-850 | No | 33000 | 201½ | 67 | 109 9/32 |
| 10-38D8⅛ | O | 2 | 10-8⅛x10 | 10370 | 16.10 | 2120-850 | 2120-850 | No | 39250 | 228½ | 67 | 109 9/32 |
| 12-38D8⅛ | O | 2 | 12-8⅛x10 | 12444 | 16.10 | 2540-850 | 2540-850 | No | 45500 | 259¾* | 67 | 109 9/32 |

ABBREVIATIONS: †—Horsepower available for traction I—In-line. O—Opposed piston. V—Vee type. *—Along center line.

# ENGINES—*Concluded*

| VALVES | | PISTONS | | | PISTON PIN | | CONNECTING RODS | | | MAIN BEARINGS | | INJECTION SYSTEM | | | | | | | | | STARTING METHOD | | OVERALL DIMENSIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Exhaust Port Diameter and Lift (in.) | Material | Length (in.) | Weight with Rings and Pin (Lb.) | No. of Compression Rings | No. of Oil Rings | Diameter and Length (in.) | Locked in— | Material (S. A. E. No.) | Center to Center Length (In.) | Weight with Cap and Bushing (Lb.) | Number | Diameter (In.) | Make of Pump | Make of Valve | Valve Type—Open or Closed | Orifice | Pressure—Nozzle Opening (Lb. per Sq. In.) | Air Cleaner—Make | Fuel Filter—Make | Lubricant Filter—Make | Minimum Recommended Cetane Number of Fuel | Make | Type | Length—Fan to Flywheel (In.) | Width (In.) | Height—To Top of Air Cleaner (In.) | Line Number |
| 1.12- .375 | Alu | 4.84 | 4.47 | 4 | 2 | 1.18-3.70 | F | CNM | 8.00 | 5.31 | 5 | 3.00 | AB | AB | C | Pi | 1650 | AC | Pur | Pur | 45 | DR | Ele | 46⅛ | 24¼ | 32¼ | 1 |
| 1.12- .375 | Alu | 4.84 | 3.56 | 4 | 2 | 1.18-3.20 | F | CNM | 8.00 | 5.31 | 7 | 3.00 | AB | AB | C | Pi | 1650 | AC | Pur | Pur | 45 | DR | Ele | 63⅞ | 24¼ | 32¼ | 2 |
| 1.12- .350 | Alu | 4.03 | 3.20 | 3 | 2 | 2.87-1.12 | F | CNM | 7.75 | 4.20 | 5 | 2.75 | AB | AB | C | Pi | 1650 | AM | Pur | Pur | 45 | DR | Ele | 50 | 23½ | 31⅛ | 3 |
| 1.90- .500 | Alu | 7.53 | 12.60 | 4 | 2 | 2.00-4.90 | F | CNM | 12.00 | 13.75 | 7 | 4.50 | AB | AB | C | Pi | 2000 | AM | Pur | Pur | 45 | DR | Ele | 86¼ | 36⅞ | 50¼ | 4 |
| 1.09- .209 | CI | 3.81 | 2.26 | 3 | 2 | 1.06-2.50 | F | 1035 | 8.00 | 1.65 | 2 | 2.00 | Own | Own | O | Si | 1 | AM | AC | Fra | 40 | AL | E-H | 18⅛ | 20¾ | 28½ | 5 |
| 1.37- .313 | CI | 5.46 | 6.20 | 3 | 2 | 1.50-4.00 | F | 1035 | 10.87 | 6.60 | 2 | 2.75 | Own | Own | O | Si | 1 | AM | Fra | Fra | 40 | AL | Opt | 23 | 23 | 38 | 6 |
| 1.37- .313 | CI | 5.93 | 6.20 | 3 | 2 | 1.50-4.00 | F | 1035 | 10.87 | 6.60 | 3 | 2.75 | Own | Own | O | Si | 1 | AM | Fra | Fra | 40 | AL | Opt | 30 | 23 | 38 | 7 |
| 1.37- .313 | CI | 5.31 | 6.20 | 3 | 2 | 1.50-4.00 | F | 1035 | 10.87 | 6.60 | 4 | 2.75 | Own | Own | O | Si | 1 | AM | Fra | Fra | 40 | AL | Ele | 35 | 23 | 38 | 8 |
| 1.37- .313 | CI | 5.46 | 6.20 | 3 | 2 | 1.50-4.00 | F | 1035 | 10.87 | 6.60 | 7 | 3.16 | Own | Own | O | Si | 1 | AM | Fra | Fra | 40 | AL | Ele | 50 | 24 | 40 | 9 |
| 2.37- .728 | Alu | 10.25 | 30.59 | 4 | 2 | 3.00-6.93 | F | 1040 | 18.00 | 48.05 | 7 | 6.00 | BB | BB | C | .... | 3000 | Opt | Win | Mic | 50 | LN | A-EI | .... | .... | .... | 10 |
| 2.37- .728 | AA | 9.62 | 26.25 | 4 | 1 | 3.00-6.93 | F | 1040 | 18.00 | 48.05 | 7 | 6.00 | AB | AB | C | Mu | 3300 | AM | Cun | Cun | 50 | LN | Ele | 114½ | 39¼ | 64 | 11 |
| 2.37- .728 | AA | 9.62 | 26.25 | 4 | 1 | 3.00-6.93 | F | 1040 | 18.00 | 46.05 | 9 | 6.00 | AB | AB | C | Mu | 3300 | AM | Cun | Cun | 50 | LN | Ele | 134½ | 39¼ | 64 | 12 |
| 1.81- .536 | CI | 8.00 | 15.00 | 4 | 2 | 2.12-4.50 | F | 1040 | 14.25 | 19.11 | 5 | 4.50 | AB | AB | C | Pi | 1600 | Bur | DeL | Com | 50 | LN | Ele | .... | .... | .... | 13 |
| 1.81- .536 | CI | 8.00 | 15.00 | 4 | 2 | 2.12-4.50 | F | 1040 | 14.25 | 19.11 | 7 | 4.50 | AB | AB | C | Pi | 1600 | Bur | DeL | Com | 50 | LN | Ele | .... | .... | .... | 14 |
| 1.81- .536 | CI | 8.00 | 15.00 | 4 | 2 | 2.12-4.50 | F | 1040 | 14.25 | 19.11 | 9 | 4.50 | AB | AB | C | Pi | 1600 | Bur | DeL | Com | 50 | LN | Ele | .... | .... | .... | 15 |
| 3.12- .875 | CI | 13.69 | 86.20 | 4 | 3 | 3.50-7.00 | F | 1045 | 21.00 | 75.00 | 7 | 6.00 | B-D | B-D | C | Mu | 2500 | AM | Pur | Opt | 45 | Own | A | 112 | 40 | 70 | 16 |
| 3.12- .775 | CI | 13.69 | 86.20 | 4 | 3 | 3.50-7.00 | F | 1045 | 21.00 | 75.00 | 7 | 6.00 | B-D | B-D | C | Mu | 3300 | AM | Pur | Opt | 45 | Own | A | 148 | 48 | 70 | 17 |
| 3.06- .697 | CI | 11.72 | 73.10 | 4 | 3 | 3.50-7.00 | F | 1045 | 21.00 | 67.10 | 7 | 6.00 | BB | BB | C | Mu | 3000 | AM | Pur | Opt | 45 | Opt | Ele | 129 | 56 | 74 | 18 |
| 3.06- .620 | CI | 11.72 | 73.10 | 4 | 3 | 3.50-7.00 | F | 1045 | 21.00 | 67.10 | 7 | 6.00 | BB | BB | C | Mu | 3500 | AM | Pur | Opt | 45 | Opt | Ele | 148 | 56 | 74 | 19 |
| 3.06- .620 | CI | 11.72 | 73.10 | 4 | 3 | 3.50-7.00 | F | 1045 | 21.00 | 67.10 | 7 | 6.00 | BB | BB | C | Mu | 3500 | AM | Pur | Opt | 45 | Opt | Ele | 148 | 56 | 74 | 20 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 21 |
| 1.00- .281 | CI | 4.75 | 3.28 | 3 | 2 | 1.25-2.75 | F | 1045 | 8.75 | 1.97 | 3 | 2.25 | AB | AB | C | Pi | 1800 | Opt | Opt | Opt | 45 | Opt | Ele | 30½ | 19 | 27½ | 21 |
| 1.18- .362 | CI | 4.18 | | 3 | 1 | 1.25-3.00 | F | 1045 | 8.75 | .... | 4 | 2.62 | AB | AB | C | Pi | 1500 | Opt | Fra | Mic | 45 | Opt | Ele | 42⅝ | 22 | 29½ | 22 |
| 1.37- .469 | Alu | 6.50 | 4.00 | 3 | 1 | 1.37-3.87 | F | 1045 | 10.25 | 5.31 | 7 | 3.25 | AB | Hes | O | Mu | 750 | Opt | Mic | Mic | .... | Opt | Ele | 50⅜ | 21½ | 41½ | 23 |
| 1.81- .531 | Alu | 7.25 | | 4 | 2 | 1.87-4.50 | F | 4145 | 11.75 | .... | 7 | 4.25 | AB | AB | C | Pi | 2000 | Opt | Com | Mic | 50 | DRW | E-G | 55⅛ | 25⅛ | 48⅛ | 24 |
| 1.37- .531 | Alu | 7.25 | 6.44 | 3 | 1 | 1.62-4.87 | F | 1045 | 11.75 | 8.31 | 7 | 3.50 | AB | Hes | O | Mu | 750 | Opt | Mic | Mic | .... | Opt | Ele | 55⅛ | 25⅛ | 46⅛ | 25 |
| 2.00- .656 | CI | 8.37 | 11.00 | 3 | 1 | 1.87-5.50 | F | 1045 | 13.25 | 12.20 | 7 | 4.00 | AB | Hes | O | Mu | 780 | Opt | Mic | Mic | .... | Opt | E-G | 65⅝ | 30⅛ | 50⅞ | 26 |
| 2.00- .656 | Alu | 3.37 | .... | 3 | 2 | 2.18-5.37 | F | 4145 | 13.25 | .... | 7 | 4.75 | AB | AB | C | Pi | 2000 | Opt | Com | Mic | 50 | DRW | E-G | 65⅝ | 30⅛ | 50⅞ | 27 |
| 2.25- .710 | CI | 9.25 | 24.75 | 3 | 1 | 2.00-6.00 | F | 1045 | 15.37 | 19.60 | 7 | 3.75 | AB | Hes | O | Mu | 780 | Opt | Mic | HC | .... | Opt | E-G | 76 | 32⅝ | 57⅞ | 28 |
| 2.75- .704 | CI | 11.34 | 67.50 | 4 | 2 | 3.00-7.00 | F | 4145 | 21.37 | 40.00 | 7 | 5.50 | AB | AB | C | Pi | .... | Vor | Com | HC | 45 | Own | G | 96 | 47 | 86 | 29 |
| .... | .378 | Alu | 4.94 | | 3 | 1 | 1.50-3.62 | F | 1045 | 9.50 | .... | 7 | 3.25 | AB | AB | C | Pi | 1800 | Opt | Opt | Opt | 45 | Opt | Ele | 48 | 26 | 33 | 30 |

**Don**—Donaldson Co.
**DR**—Delco-Remy Div.
**DRW**—Delco or Waukesha.
**EAH**—Air, Electric, or Hand.
**E-G**—Electric or auxiliary gasoline engine.
**E-H**—Electric or hand.
**Ele**—Electric.
**F**—Floating.
**F-A**—Fram or AC
**Ft**—Fulflo.
**Fra**—Fram Corp.
**G**—Auxiliary gasoline engine
**GS**—Gasoline and spark ignition.
**Ha**—Hand.
**Hes**—Hesselman.
**I**—Industrial.
**IA**—Iron alloy
**HI**—Horizontally In-head.
**LB**—Leece Neville or Buda.
**L-D**—Leece Neville or Delco-Remy.
**LDA**—Leece-Neville, Delco-Remy or Autolite.
**LN**—Leece Neville Co.
**Lyn**—Lynite.
**M**—Marine.
**Mic**—Michiana Products Corp.
**MW**—Marine Work Boat.
**N**—No or none.
**Mu**—Multiple.
**Nug**—Nugent.
**O**—Open.
**O-D**—Own or Delco-Remy.
**Opt**—Optional.
**PC**—Precombustion chamber.
**Pi**—Pintle.
**P-L**—Purolator or Luberfiner.
**P-S**—Purolator or Stewart-Warner.
**Pur**—Purolator Products, Inc.
**R**—Railcars.
**Sc**—Scintilla Magneto Div.
**Sh**—Shaft torque; Shaft RPM.
**Si**—Single.
**T**—Trucks.
**TC**—Turbulence chamber.
**Tr**—Tractors.
**Uni**—United Air Cleaner Div.
**Vi**—Vertically In-Head.
**V2**—Vertically in head, 2 inlets used.
**V4**—Vertically in-head 2 exhaust and 2 intake valves per cylinder
**Ver**—Vortex.
**Vwg**—Varies with gear.
**W**—Wet liners used.
**Wau**—Waukesha
**W-L**—WGB Oil Clarifier or Luberfiner
**WP**—Winslow or Purolator.
**Win**—Winslow Filter.
**WiP**—Wix or Purolator.

***For Directory of the Manufacturers listed above, see page 190.***

## Private and For-Hire Trucking, 1936 and 1949*

(Includes all rural-to-rural as well as intercity operations)

| Item | 1936 Private | 1936 For-hire | 1949 Private | 1949 For-hire | Per cent increase 1949 over 1936 Private | Per cent increase 1949 over 1936 For-hire |
|---|---|---|---|---|---|---|
| Single unit trucks: | | | | | | |
| Per cent loaded | 59.8 | 66.4 | 45.3 | 55.1 | d24.2 | d17.0 |
| Average weight of load (tons) | 1.71 | 2.73 | 2.10 | 3.97 | 22.8 | 45.4 |
| Ton-miles (millions) | 11,180 | 3,078 | 21,193 | 4,446 | 89.6 | 44.4 |
| Truck combinations: | | | | | | |
| Per cent loaded | 65.5 | 77.3 | 61.2 | 68.7 | d 6.6 | d11.1 |
| Average weight of load (tons) | 6.37 | 7.23 | 9.43 | 10.65 | 48.0 | 47.3 |
| Ton-miles (millions) | 4,914 | 5,833 | 22,038 | 41,423 | 348.5 | 369.9 |
| All trucks and combinations: | | | | | | |
| Per cent loaded | 60.3 | 71.9 | 47.6 | 65.1 | d21.1 | d 9.5 |
| Average weight of load (tons) | 2.20 | 5.07 | 3.48 | 9.16 | 58.2 | 80.7 |
| Ton-miles (millions) | 16,094 | 11,911 | 43,231 | 45,869 | 168.6 | 285.1 |
| Per cent ton-miles of total for year | 57.5 | 42.5 | 48.5 | 51.5 | .... | .... |
| Total vehicle-miles (millions) | 12,140 | 3,267 | 26,077 | 7,700 | 114.8 | 135.7 |

d—decrease.
*—Based on survey conducted by Bureau of Public Roads.

# 1951 U. S. AND BRITISH

| Line Number | MAKE AND MODEL | ENGINE TYPE: Turbo-jet or Prop. | ENGINE TYPE: Single or Coupled | PERFORMANCE: TAKE-OFF: Thrust (Lb) | TAKE-OFF: Prop. Shaft (Hp) | TAKE-OFF: RPM | TAKE-OFF: Fuel Consumption | NORMAL: Thrust (Lb) | NORMAL: Prop. Shaft (Hp) | NORMAL: RPM | NORMAL: Fuel Consumption | MAX. CRUISING: Thrust (Lb) | MAX. CRUISING: Prop. Shaft (Hp) | MAX. CRUISING: RPM | MAX. CRUISING: Fuel Consumption | Propeller Gearing Type | COMPRESSOR: Type | COMPRESSOR: No. of Stages | COMPRESSOR: Pressure Comp. Ratio | COMPRESSOR: Blade Root | TURBINE: No. of Stages | TURBINE: Blade Roots |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **UNITED STATES** | | | | | | | | | | | | | | | | | | | | | |
| 1 | Allison T38-A | TP | S | | 2763* | 14300 | 0.58† | | | | | | | | | P | A | 19 | 6.30 | Do | 4 | Do |
| 2 | T40-A-6 | TP | C | | 5525* | 14300 | 0.86† | | | | | | | | | P | A | 19■ | 6.30 | Do | 4■ | Do |
| 3 | J35-A-21 | TJ | S | 5100 | None | 7900 | | 4400 | None | 7500 | 1.12‡ | 4400 | None | 7500 | | N | A | 11 | 4.90 | Do | 1 | FT |
| 4 | J33-A-35 | TJ | S | 4600 | None | 11750 | | 3900 | None | 11250 | 1.14‡ | 3600 | None | 11000 | | N | Ce | 1 | 4.40 | In | 1 | FT |
| 5 | J33-A-33 | TJ | S | 4600◇ | None | 11750 | | 3900◇ | None | 11250 | 1.16‡ | | | | | N | Ce | 1 | 4.40 | In | 1 | |
| 6 | General Electric J-47 | TJ | S | 5200 | None | 7950 | | 4320 | None | 7370 | | 3700 | None | 7000 | 1.03‡ | N | A | 12 | 5.00 | | 1 | |
| 7 | Pratt & Whitney J-42 | TJ | S | 5000 | None | | 1.12‡ | 4000 | None | | 1.08‡ | 2700 | None | | 1.11‡ | N | Ce | 1 | 4.30 | | 1 | |
| 8 | J-48 | TJ | S | 6250 | None | | 1.09‡ | | None | | | | None | | | N | Ce | 1 | | | 1 | |
| 9 | T-34 | TP | S | | 5700* | | 0.62† | | | | | | | | | | A | 13 | | | 3 | |
| 10 | J-57 | TJ | S | (Data Restricted) | | | | | | | | | | | | | | | | | | |
| 11 | Westinghouse J-34-WE-22 | TJ | S | | None | | | 2290 | None | | | 3000 | None | 12500 | 1.08‡ | N | A | 11 | | | 2 | FT |
| 12 | Wright Mamba | TP | S | | 1320 | 15000 | 0.76† | | 1410 | 14500 | 0.67† | | | | | P | A | 10 | | | 2 | |
| 13 | Double Mamba | TP | C | | 2640 | 15000 | 0.78† | | 2820 | 14500 | 0.67† | | | | | P | A | 10 | | | 2 | |
| 14 | Python | TP | S | | 4100 | 8000 | 0.76† | | 3680 | 7600 | 0.65† | | | | | P | A | 14 | | | 2 | |
| 15 | Sapphire (J-65) | TJ | S | 7220 | None | | 0.92‡ | | None | | | | | | | N | A | | | | | |
| | **GREAT BRITAIN** | | | | | | | | | | | | | | | | | | | | | |
| 16 | Armstrong-Siddeley Adder | TJ | S | 1098 | None | 15000 | 0.74‡ | 738 | None | 14250 | 0.93‡ | 757 | None | 14250 | 0.82‡ | N | A | 10 | | | 2 | |
| 17 | Mamba | TP | S | 405 | 1320 | 15000 | 0.53† | 225 | 1150 | 14500 | 0.54† | 275 | 1440 | 15000 | 0.47† | P | A | 10 | 5.00 | | 2 | |
| 18 | Double Mamba | TP | C | 810 | 2640 | 15000 | 0.53† | 450 | 2300 | 14500 | 0.52† | 550 | 2880 | 15000 | 0.46† | P | A | 10 | 5.00 | | 2 | |
| 19 | Python | TP | S | 1150 | 3670 | 8000 | 0.50† | 390 | 3260 | 7600 | 0.50† | 660 | 3450 | 7800 | 0.48† | P | A | 14 | 5.00 | | 2 | FT |
| 20 | Sapphire | TJ | S | 7220 | None | | | | None | | | | None | | | N | A | | | | | |
| 21 | Viper | TJ | S | | None | | | 1575 | None | | | | None | | | N | A | | | | | |
| 22 | Bristol Theseus | TP | S | | | | | 825 | 2220 | 8200 | 0.87† | | | | | | CA | 2 | | | 3 | |
| 23 | Proteus | TP | S | | | | | 800 | 3200 | 10000 | 0.63† | | | | | | CA | 2 | | | 3 | |
| 24 | De Haviland Goblin 2 | TJ | S | 3100 | None | 10200 | 1.28‡ | 1900 | None | 8700 | 1.30‡ | 2630 | None | 9700 | 1.27‡ | N | Ce | 1 | | In | 1 | FT |
| 25 | Goblin 3 | TJ | S | 3350 | None | 10750 | 1.18‡ | 2220 | None | 9500 | 1.18‡ | 2850 | None | 10250 | 1.16‡ | N | Ce | 1 | 3.40 | In | 1 | FT |
| 26 | Goblin 4, 35 | TJ | S | 3500 | None | 10750 | 1.16‡ | 2300 | None | 9500 | 1.16‡ | 3000 | None | 10250 | 1.14‡ | N | Ce | 1 | 3.40 | In | 1 | FT |
| 27 | Ghost 50 | TJ | S | 5000 | None | 10250 | 1.09‡ | 3380 | None | 9000 | 1.02‡ | 4300 | None | 9750 | 1.05‡ | N | Ce | 1 | 4.00 | In | 1 | FT |
| 28 | Napier Naiad | TP | S | 241 | 1500 | 18250 | 0.70† | 204 | 1149 | 17500 | 0.75† | 182 | 978 | 17000 | 0.80† | P | A | 12 | 5.00 | FT | 2 | FT |
| 29 | Coupled Naiad | TP | C | 482 | 2970 | 18250 | 0.70† | 408 | 2273 | 17500 | 0.76† | 364 | 1936 | 17000 | 0.80† | P | A | 12 | 5.00 | FT | 2 | FT |
| 30 | Rolls-Royce N ne 2 | TJ | S | 5000 | None | 12500 | | 4500 | None | 12200 | | 4300 | None | 11800 | | N | Ce | 1 | | In | 1 | |
| 31 | Derwent 5 | TJ | S | 3600 | None | 14700 | 1.05‡ | | None | | | 3090 | None | 14100 | | N | Ce | 1 | | In | 1 | |
| 32 | Nene 3 | TJ | S | 5000 | None | 12500 | 1.05‡ | 4680 | None | 12200 | | 4090 | None | 11800 | | N | Ce | 1 | 4.50 | In | 1 | |
| 33 | Dart 504 | TP | S | 365 | 1400 | 14500 | 0.83† | | | | | 295 | 1120 | 13800 | | | Ce | 2 | | In | 2 | |
| 34 | Tay | (Data Restricted) | | | | | | | | | | | | | | | | | | | | |
| 35 | Avon | (Data Restricted) | | | | | | | | | | | | | | | | | | | | |

**ABBREVIATIONS**

▲—Booster pump.
*—Equivalent hp—thrust and prop shaft.
**—Width—52½ in., height—43½ in.
■—Each unit.
•—Width.

°—Without afterburner.
‡—Alternator used.
▬—Integral with pumps.
‡—Lb/hr./lb thrust.
†—Lb/hp/hr.
◇—Included in main pump.
A—Axial.

AK—Aviation kerosene.
An—Annular.
AR—Air Research.
Ben—Bendix.
C—Coupled.
CA—Centrifugal and axial.
Ce—Centrifugal.

Cy—Cylindrical.
DA—Double annular.
DF—Direct flow.
Do—Dovetail.
Dow—Dowty.
FT—Fir tree
GE—General Electric.

***For Directory of the Manufacturers listed above, see page 190.***

## Aircraft Propellers and Other Products. Aircraft Propeller Plants. Value of Shipments: 1950 and 1949

(In thousands of dollars)

| | All products and services | Aircraft propellers and parts: Total | Military: Total | Military: Propellers | Military: Parts | Civil: Total | Civil: Propellers | Civil: Parts | All other products and services |
|---|---|---|---|---|---|---|---|---|---|
| January | $5,650 | $5,157 | $4,365 | | | $772 | $299 | $473 | $513 |
| February | 6,391 | 5,901 | 4,898 | | | 1,003 | 598 | 405 | 490 |
| March | 7,157 | 6,425 | 10,286 | | | 1,053 | 599 | 454 | 732 |
| April | 6,632 | 5,805 | | | | 891 | 521 | 370 | 827 |
| May | 7,375 | 5,339 | 4,345 | $2,919 | $1,426 | 994 | 442 | 552 | 2,036 |
| June | 6,741 | 5,232 | 4,178 | 2,778 | 1,400 | 1,054 | 453 | 601 | 1,509 |
| July | 6,210 | 5,163 | | | | 962 | 494 | 468 | 1,047 |
| August | 5,876 | 4,881 | 12,247 | | | 839 | 506 | 333 | 995 |
| September | 5,913 | 4,936 | | | | 876 | 450 | 426 | 982 |
| October | 6,042 | 5,096 | | | | 874 | 451 | 423 | 946 |
| November | 5,761 | 5,057 | 12,849 | 8,228 | 4,621 | 894 | 468 | 426 | 704 |
| December | 8,623 | 5,228 | | | | 761 | 283 | 478 | 3,398 |
| 1949, Total | $66,851 | $57,595 | $45,770 | $31,860 | $13,910 | $11,825 | $6,081 | $5,744 | $9,286 |
| 1950, Total | 78,371 | 64,191 | 53,168 | 37,815 | 15,352 | 11,023 | 5,664 | 5,359 | 14,180 |

Source: Industry Division, Bureau of the Census.

# AIRCRAFT GAS TURBINES

| Arrangement | No. Used | Material | Air Intake | No. of Pumps | No. of Emergency Pumps | Fuel Controls | Afterburning | Recommended Octane Rating of Fuel | No. of Fuel Nozzles per Combustion Chamber | No. of Igniters | Type of Igniter | Sump Capacity (Pts) | Max. Oil Consumption (Pts./Hr) | Starter | Generator | Governor | Vacuum Pump | Fuel Pumps | Length (In.) With Extension Pipe | Length (In.) Without Extension Pipe | Max Diameter (In.) | Dry Weight With Component Parts (Lb) | Dry Weight Without Component Parts (Lb) | Line Number |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cy | 8 | R | DF | | R | | N | | 1 | 2 | Sp | | | AR | | | | Pes | 149 | | 40* | 1540 | | 1 |
| Cy | 16 | | DF | | | | N | | | 4 | Sp | R | | AR | | | | Pes | 185 | | 45* | 2575 | | 2 |
| Cy | 8 | | DF | 1 | 1 | M | N | 100/130 | 1 | 2 | Sp | Dry | 11.0 | GE | GE | Ben | N | Pes | 195½ | | 37 | 2635 | 2149 | 3 |
| Cy | 14 | SS | DF | 1 | (a) | M-H | N | 100/130 | 1 | 2 | Sp | 24.0 | 2.0 | GE | JH | | | Pes | 107 | | 50½ | 1795 | 1702 | 4 |
| | | | | | | | Y | | | | | | | GE | | | | | 213 | | 49⅞ | 2465 | 1798 | 5 |
| Cy | 8 | SS | DF | 2 | | | N | AK | 1 | 2 | | | 2.0 | Own | Own | | | | 144 | | 36¾ | 2500 | | 6 |
| Cy | 9 | Ste | DF | 2 | 1♣ | M | N | 73 | 2 | 2 | Sp | 18.5 | 1.5 | | | Ben | | Ben | 103¼ | | 48½ | 1723 | | 7 |
| Cy | 9 | | | | | | | | | | | | | | | | | | 108¾ | | 50 | 2000 | | 8 |
| An | 1 | | | | | | | | | | | | | | | | | | 135 | | 30 | 2580 | | 9 |
| | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| DA | 1 | SS | DF | 1 | 1 | | N | AN-F-48 | 60 | 2 | Sp | Dry | | Own | | Hol | | Hol | 120 | | 24 | 1200 | | 11 |
| Cy | 6 | | DF | | | | | | | | | | | | | | | | 79⅛ | | 29 | | 770 | 12 |
| Cy | 6 | | DF | | | | | | | | | | | | | | | | 102 | | 52⅛ | | 2000 | 13 |
| Cy | 11 | | RF | | | | | | | | | | | | | | | | 122⅝ | | 54½ | | 3485 | 14 |
| | | | DF | | | | | | | | | | | | | | | | 133⅛ | | 37⅞ | | 2500 | 15 |
| Cy | 6 | | DF | | | | N | | | | | | 1.0 | | | | | | | 73⅛ | 28 | | 580 | 16 |
| Cy | 6 | | DF | | | | N | AK | | | | | 2.0 | | | | | | | 57⅛ | 31 | | 780 | 17 |
| Cy | 12 | | DF | | | | N | AK | | | | | 4.0 | | | | | | | 79⅛ | ** | | 2000 | 18 |
| Cy | 11 | | RF | | | | N | AK | | | | | | | | | | | | 96⅛ | 54½ | 3150 | | 19 |
| | | | DF | | | | | | | | | | | | | | | | 134 | | 35¼ | | 2500 | 20 |
| An | | | DF | | | | N | | | | | | | | | | | | | | 23¼ | | | 21 |
| Cy | 8 | | DF | | | | N | | | | | | | | | | | | | 82.6 | 54 | 2205 | | 22 |
| Cy | 8 | | DF | | | | N | | | | | | | | | | | | | 113.4 | 38½ | 3050 | | 23 |
| Cy | 16 | NS | DF | 1 | | | N | DED 2482 | 1 | 2 | Sp | 10 | 2.0 | Rot | Rot | ▬ | Pie | Dow | | 100½ | 49.9 | 1553 | | 24 |
| Cy | 16 | NS | DF | 2 | 1 | | N | DED 2482 | 1 | 2 | Sp | 10 | 2.0 | Rot | Rot | Own | Pie | Lu | | 100½ | 49.9 | 1619 | | 25 |
| Cy | 16 | NS | DF | 2 | 1 | | N | DED 2482 | 1 | 2 | Sp | 10 | 2.0 | Rot | Rot | Own | Pie | Lu | | 100½ | 49.9 | 1600 | | 26 |
| Cy | 10 | NS | DF | 2 | 1 | | N | DED 2482 | 1 | 2 | Gl | 16 | 1.5 | Rot | BTH‡ | Own | Pie | Lu | | 115½ | 53 | 2148 | | 27 |
| Cy | 5 | NS | 1 | 1 | | | N | AK | | 2 | Gl | 20 | 1.0 | RP | | Rol | | Lu | | 100 | 28 | | 1095 | 28 |
| Cy | 10 | NS | 2 | 2 | | | N | AK | | 4 | Gl | 56 | 2.0 | RP | | Rol | | Lu | | 130 | | | 2550 | 29 |
| Cy | 9 | | | 2 | | | N | | | | | | 1.0 | | | | | | | 96.8 | 49½ | 1755 | | 30 |
| Cy | 9 | | | 1 | | | N | | | | | | 1.0 | | | | | | | 83.1 | 43 | 1280 | | 31 |
| | 9 | | | 2 | | | | | | | | | 1.0 | | | | | | | 98½ | 45½ | 1621 | | 32 |
| | 7 | | | 1 | | | | | | | | | 1.0 | | | | | | | 95⅞ | 38½ | 1024 | | 33 |
| | | | | | | | | | | | | | | | | | | | | | | | | 34 |
| | | | | | | | | | | | | | | | | | | | | | | | | 35 |

Gl—Glow.
Hol—Holley Carburetor Co.
In—Integral.
JH—Jack & Heintz.
Lu—Lucas.
M—Mechanical.
M-H—Mechanical and hydraulic.
N—No or none.
NS—Nimonic sheet.
P—Planetary.
Pes—Pesco.
Pls—Plessey.
R—Restricted data.
RF—Reverse flow.
Rol—Rotol.
Rot—Rotax.
RP—Rotax of Plessey.
S—Single.
Sp—Spark.
SS—Stainless steel.
Ste—Steel.
TJ—Turbo-jet.
TP—Turbo-prop.
Y—Yes.

***For Directory of the Manufacturers listed above, see page 190.***

## Number of Employees in Aircraft Propeller Plants: 1949-1950

(Based on payroll period ending nearest middle of month)

| | Total employees | | Production and related workers | | All other employees | |
|---|---|---|---|---|---|---|
| | 1950 | 1949 | 1950 | 1949 | 1950 | 1949 |
| January | 8,378 | 8,247 | 5,584 | 5,408 | 2,794 | 2,839 |
| February | 8,321 | 8,205 | 5,574 | 5,354 | 2,747 | 2,851 |
| March | 8,341 | 8,319 | 5,584 | 5,466 | 2,757 | 2,853 |
| April | 8,270 | 8,375 | 5,519 | 5,526 | 2,751 | 2,849 |
| May | 8,288 | 8,506 | 5,524 | 5,633 | 2,764 | 2,873 |
| June | 8,258 | 8,782 | 5,447 | 5,852 | 2,811 | 2,931 |
| July | 8,300 | 8,506 | 5,459 | 5,664 | 2,841 | 2,842 |
| August | 8,168 | 6,877 | 5,279 | 4,053 | 2,889 | 2,824 |
| September | 8,754 | 8,514 | 5,795 | 5,661 | 2,959 | 2,853 |
| October | 9,005 | 8,528 | 5,988 | 5,692 | 3,017 | 2,836 |
| November | 9,278 | 8,367 | 6,176 | 5,565 | 3,102 | 2,802 |
| December | 9,489 | 8,377 | 6,351 | 5,563 | 3,138 | 2,814 |

## RECIPROCATING TYPE

| ENGINE MAKE AND MODEL | A. T. C. Number | GENERAL DATA: Arrangement | Cooling Medium | Number of Cylinders | Bore and Stroke (In.) | Total Piston Displacement (Cu. In.) | Compression Ratio (to —1) | B.M.E.P. at Maximum Hp. (Lb. per Sq. In.) | Blower Ratio | Cylinder Material | No. of Valves per Cylinder: Intake | Exhaust | Valve Arrangement | RATINGS: Maximum (Except Take-off): Horsepower | R. P. M. | At Sea Level or Altitude (Ft.) | Take-off: Horsepower | R. P. M. | Cruising: Horsepower | R. P. M. | Octane Rating of Fuel Required | Propeller Drive Ratio (to —1) | Weight (Lb.): Engine Dry—Without Hub or Starter | Per Maximum Hp. (Except Take-off) | Carburetor: Number Used and Make | Type | Ignition System—Make | Starting: Make | Method | Installation Dimensions (Overall—Ins.): Length | Height or O. D. | Width | Height above Engine Bed | Diameter Mounting Ring or Distance Between Bearers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Continental A65-8 | 205 | Hor | Air | 4 | 3 7/16 x 3 5/8 | 171.0 | 6.30 | 131 | No | (5) | 1 | 1 | In | 65 | 2300 | SL | 65 | 2300 | 55 | 2150 | 73 | D | 176 | 2.70 | 1-Str | FL | Eis | N | | 31.00 | 23.3 | 31 1/2 | | |
| C75-12 | 233 | Hor | Air | 4 | 4 1/16 x 3 5/8 | 188.0 | 6.30 | 139 | No | (5) | 1 | 1 | In | 75 | 2275 | SL | 75 | 2275 | 58 | 2275 | 73 | D | 184 | 2.43 | 1-Str | FL | Scin | DR | EM | 32 | 24.2 | 31.60 | | |
| C85-12 | 233 | Hor | Air | 4 | 4 1/16 x 3 5/8 | 188.0 | 6.30 | 139 | No | (5) | 1 | 1 | In | 85 | 2575 | SL | 85 | 2575 | 61 | 2300 | 73 | D | 176 | 2.14 | 1-Str | FL | Scin | N | | 31.00 | 24.2 | 31 1/2 | | |
| C85-8F | 233 | Hor | Air | 4 | 4 1/16 x 3 5/8 | 188.0 | 6.30 | 139 | No | (5) | 1 | 1 | In | 85 | 2575 | SL | 85 | 2575 | 61 | 2300 | 73 | D | 184 | 2.07 | 1-Str | FL | Scin | DR | EM | 32 | 24.2 | 31.60 | | |
| C90-8F | 252 | Hor | Air | 4 | 4 1/16 x 3 7/8 | 200.9 | 7.00 | 143 | No | (5) | 1 | 1 | In | 90 | 2475 | SL | 90 | 2455 | 64 | 2200 | 80 | D | 184 | 2.07 | 1-Str | | Scin | DR | EM | 31.00 | 24.20 | 31.50 | | |
| C90-12F | 252 | Hor | Air | 4 | 4 1/16 x 3 7/8 | 200.9 | 7.00 | 143 | No | (5) | 1 | 1 | In | 90 | 2475 | SL | 95 | 2655 | 64 | 2200 | 80/87 | D | 188 | 2.06 | 1-Str | FL | Scin | DR | EM | 32.00 | 24.2 | 31.60 | | |
| C125-2 | 236 | Hor | Air | 6 | 4 1/16 x 3 5/8 | 282.0 | 6.30 | 138 | No | (5) | 1 | 1 | In | 125 | 2550 | SL | 125 | 2550 | 98 | 2400 | 73 | D | 257 | 2.05 | 1-MS | FL | Scin | DR | EM | 41.00 | 24.7 | 31.60 | | |
| C145-2 | 253 | Hor | Air | 6 | 4 1/16 x 3 7/8 | 301.3 | 7.00 | 141 | No | (5) | 1 | 1 | In | 145 | 2700 | SL | 145 | 2700 | 109 | 2450 | 80/87 | D | 265 | 1.82 | 1-MS | FL | Scin | DR | EM | 41.00 | 24.7 | 31.60 | | |
| E185 | 246 | Hor | Air | 6 | 5x4 | 471.0 | 7.00 | 135 | No | (5) | 1 | 1 | In | 185 | 2300 | SL | 185 | 2300 | 135 | 2070 | 80/87 | D | 344 | 1.86 | 1-Str | PI | Scin | DR | EM | 46.66 | 22.3 | 33.41 | | |
| E225-8 | 267 | Hor | Air | 6 | 5x4 | 471.0 | 7.00 | 143 | No | (5) | 1 | 1 | In | 225 | 2650 | SL | 225 | 2650 | 185 | 2485 | 80/86 | D | 347 | 1.50 | 1-Str | | Scin | Ecl | EM | 46.66 | 22.30 | 33.41 | | |
| O-470-11 | | Hor | Air | 6 | 5x4 | 471.0 | 7.00 | 140 | No | (5) | 1 | 1 | In | 190 | 2300 | SL | 190 | 2300 | | | 80 | D | 399 | 2.10 | 1-Str | | Scin | Ecl | EM | 45.20 | 30.10 | 33.41 | | |
| W670-23 | 162 | Rad | Air | 7 | 5 1/16 x 4 1/8 | 667.8 | 6.10 | 130 | No | (5) | 1 | 1 | In | 240 | 2200 | SL | 240 | 2200 | 175 | 2000 | 80/87 | D | 519 | 2.12 | 1-Str | FL | Scin | | | 35.56 | 42 1/4 | 42.50 | | |
| R-9A | 245 | Rad | Air | 9 | 5x5 1/2 | 972.0 | 6.30 | 177 | No | (5) | 1 | 1 | In | 500 | 2300 | SL | 525 | 2300 | 350 | 2225 | 91 | D | 705 | 1.34 | 1-Str | | Scin | N | | 42.90 | 47.50 | 45.20 | | |
| Franklin 4A4-75-B3 | 239 | Hor | Air | 4 | 4 1/16 x 3 1/2 | 225.0 | 7.00 | 135 | No | (6) | 1 | 1 | In | 75 | 1950 | SL | | | 51 | 1775 | 80 | D | 214 | 2.85 | 1-MS | FL | Eis | AL | EM | 30 1/2 | 20 1/2 | 30 1/2 | 12 1/2 | |
| 4A4-85-B3 | 239 | Hor | Air | 4 | 4 1/16 x 3 1/2 | 225.0 | 7.00 | 136 | No | (6) | 1 | 1 | In | 85 | 2200 | SL | | | 64 | 2000 | 80 | D | 214 | 2.51 | 1-MS | FL | Eis | AL | EM | 30 1/2 | 20 1/2 | 30 1/2 | 12 1/2 | |
| 4A4-100-B3 | 239 | Hor | Air | 4 | 4 1/16 x 3 1/2 | 225.0 | 7.00 | 136 | No | (6) | 1 | 1 | In | 100 | 2600 | SL | | | 75 | 2370 | 80 | D | 214 | 2.14 | 1-MS | FL | Eis | AL | EM | 30 1/2 | 20 1/2 | 30 1/2 | 12 1/2 | |
| 6A4-145-A3 | 238 | Hor | Air | 6 | 4 1/16 x 3 1/2 | 335.0 | 6.50 | 132 | No | (6) | 1 | 1 | In | 145 | 2600 | SL | | | 109 | 2370 | 73 | D | 291 | 2.00 | 1-MS | FL | Eis | DR | EM | 37 5/8 | 22 1/2 | 30 | 13 1/2 | |
| 6A4-150-B3 | 238 | Hor | Air | 6 | 4 1/16 x 3 1/2 | 335.0 | 7.00 | 136 | No | (6) | 1 | 1 | In | 150 | 2600 | SL | | | 113 | 2370 | 80 | D | 291 | 1.94 | 1-MS | FL | Eis | DR | EM | 37 5/8 | 22 1/2 | 30 | 13 1/2 | |
| 6V4-178-B3 | 244 | Ver | Air | 6 | 4 1/16 x 3 1/2 | 335.0 | 7.00 | 140 | No | (6) | 1 | 1 | In | 178 | 3000 | SL | | | | | 80 | D | 294 | 1.65 | 1-MS | FL | Scin | DR | EM | 36 | 26 | 30 | | |
| 6V4-165-B3F | 244 | Ver | Air(a) | 6 | 4 1/16 x 3 1/2 | 335.0 | 7.00 | 130 | No | (6) | 1 | 1 | In | 165 | 3000 | SL | | | | | 82 | D | 339 | 2.05 | 1-Str | FL | Scin | DR | EM | 40 5/8 | 29 | 30 | | |
| 6A4-165-B3 | 238 | Hor | Air | 6 | 4 1/16 x 3 1/2 | 335.0 | 7.00 | 139 | No | (6) | 1 | 1 | In | 165 | 2800 | SL | | | 124 | 2550 | 80 | D | 307 | 1.86 | 1-MS | PI | Scin | DR | EM | 37 5/8 | 25 5/8 | 30 | 13 1/2 | |
| 6V4-200-C32 | 244 | Ver | Air | 6 | 4 1/16 x 3 1/2 | 335.0 | 8.50 | 152 | No | (6) | 1 | 1 | In | 200 | 3100 | SL | | | | | 91 | D | 306 | 1.53 | 1-BM | P-FL | Scin | DR | EM | 26 | 36 | 30 | | |
| 6AG4-185-B13 | 238 | Hor | Air | 6 | 4 1/16 x 3 1/2 | 335.0 | 7.60 | 141 | No | (6) | 1 | 1 | In | 190 | 3100 | SL | | | | | 80 | .632 | 324 | 1.11 | 1-BM | P-FL | Scin | DR | EM | 40 1/2 | 26 1/2 | 30 | | |
| 6V6-245-B16F | 258 | Ver | Air(a) | 6 | 4 5/8 x 4 | 425.0 | 7.50 | 139 | No | (6) | 1 | 1 | In | 245 | 3275 | SL | 245 | 3275 | 184 | 3275 | 80 | D | 353 | 1.44 | 1-Str | PI | Eis | Opt | EM | 33 5/8 | 39 1/2 | 33 3/4 | | |
| 6AG6-245-B | | Hor | Air | 6 | 4 5/8 x 4 | 425.0 | 7.40 | 138 | No | (6) | 1 | 1 | In | 240 | 3200 | SL | 245 | 3300 | 180 | 2900 | 80 | .623 | 405 | 1.69 | 1-Str | PI | Scin | Opt | EM | 47 1/4 | 35 1/2 | 33 1/2 | | |
| 6A8-225-B7 | | Hor | Air | 6 | 5x4 1/2 | 500.0 | 7.00 | 137 | No | (6) | 1 | 1 | In | 225 | 2600 | SL | | | 169 | 2370 | 80 | D | 382 | 1.69 | 1-MS | FL | Eis | DR | EM | 45 1/2 | 30 1/2 | 33 1/2 | 21 | |
| 6A8-215-B9F | | Hor | Air(a) | 6 | 5x4 1/2 | 500.0 | 7.00 | 136 | No | (6) | 1 | 1 | In | 215 | 2500 | SL | | | 161 | 2280 | 80 | D | 474 | 2.21 | 1-MS | FL | DR | DR | EM | 66 1/16 | 26 1/2 | 33 1/2 | 21 1/2 | |
| Jacobs O-240A | | Hor | Air | 4 | 4 5/16 x 4 | 241.0 | 6.50 | 143 | No | (5) | 1 | 1 | In | 100 | 2300 | SL | 100 | 2300 | 75 | 2090 | 80 | D | 200 | 2.00 | Opt | F-FI | Scin | DR | EM | 39.63 | 18.13 | 33.60 | | 16 |
| O-360A | | Hor | Air | 6 | 4 5/16 x 4 | 361.0 | 6.50 | 151 | No | (5) | 1 | 1 | In | 165 | 2400 | SL | 165 | 2400 | 120 | 2160 | 80 | D | 300 | 1.82 | Opt | F-FI | Scin | DR | EM | 47.44 | 18.13 | 33.60 | | 16 |
| R-755A | 237 | Rad | Air | 7 | 5 1/16 x 5 | 757.0 | 6.00 | 143 | No | (5) | 1 | 1 | In | 300 | 2200 | SL | 300 | 2200 | 300 | 2060 | 80 | D | 505 | 1.68 | 1-Str | FL | Scin | Ecl | EM | 39.50 | 44.00 | | | 18 1/2 |
| R-755E | 237 | Rad | Air | 7 | 5 1/16 x 5 | 757.0 | 6.50 | 146 | No | (5) | 1 | 1 | In | 350 | 2500 | SL | 350 | 2500 | 350 | 2250 | 91 | .649 | 600 | 1.72 | 1-Str | FL | Scin | Ecl | EM | 42.34 | 44 | | | 18 1/2 |
| R-915A | | Rad | Air | 7 | 5 1/16 x 5 1/2 | 914.0 | 6.00 | 124 | No | (5) | 1 | 1 | In | 375 | 2300 | SL | 375 | 2330 | 375 | 2070 | 80 | D | 560 | 1.49 | 1-Str | FL | Scin | Ecl | EM | 40.49 | 45.60 | | | 18 1/2 |
| Kinner R-56 | 153 | Rad | Air | 5 | 5x5 1/2 | 540.0 | 6.50 | 127 | No | (5) | 1 | 1 | In | 160 | 1650 | SL | 160 | 1650 | 115 | 1650 | 73 | D | 362 | 2.26 | 1-SH | FL | Scin | Ecl | Opt | 33.6 | 45 1/2 | | | 14 |
| Lycoming O-145-B2 | 210 | Hor | Air | 4 | 3 5/8 x 3 1/2 | 144.5 | 6.50 | 140 | No | (1) | 1 | 1 | In | 65 | 2550 | SL | 65 | 2550 | 49 | 2310 | 80 | D | 163 | 2.50 | 1-MS | FL | Scin | | PS | 24.62 | 20.59 | 29.56 | | (a) |
| O-235-C1 | 223 | Hor | Air | 4 | 4 5/8 x 3 7/8 | 233.3 | 6.75 | 141 | No | (5) | 1 | 1 | In | 108 | 2600 | SL | 115 | 2800 | 81 | 2360 | 80 | D | 207 | 1.92 | 1-MS | FL | Scin | DR | EM | 29.56 | 22.53 | 32.00 | | |
| O-290D | 229 | Hor | Air | 4 | 4 1/16 x 3 7/8 | 289.0 | 6.50 | 132 | | (5) | 1 | 1 | In | 125 | 2600 | SL | 130 | 2800 | 94 | 2350 | 80 | D | 225 | 1.80 | 1-MS | FL | Scin | DR | EM | 29.86 | 22.81 | 32.32 | | (t) |
| O-435-A | 228 | Hor | Air | 6 | 4 1/16 x 3 7/8 | 434.0 | 6.50 | 136 | No | (5) | 1 | 1 | In | 190 | 2550 | SL | 190 | 2550 | 143 | 2310 | 80 | D | 364 | 1.91 | 1-MS | FL | Scin | DR | EM | 38.10 | 29.61 | 32.24 | | (u) |
| O-435-A2 | 228 | Hor | Air | 6 | 4 1/16 x 3 7/8 | 434.0 | 7.50 | 137 | | (5) | 1 | 1 | In | 225 | 3000 | SL | 225 | 3000 | 170 | 2750 | 91/98 | D | 363 | 1.61 | 1-MS | FL | Scin | DR | EM | 38.10 | 29.59 | 32.24 | | (u) |
| GO-435-A2 | 228 | Hor | Air | 6 | 4 1/16 x 3 7/8 | 434.0 | 7.50 | 146 | | (5) | 1 | 1 | In | 240 | 3000 | SL | 260 | 3400 | 180 | 2750 | 80/87 | .64 | 432 | 1.80 | 1-MS | FL | Scin | DR | EM | 47.71 | 29.59 | 33.12 | | (u) |
| GO-435-C2 | 228 | Hor | Air | 6 | 4 1/16 x 3 7/8 | 434.0 | 7.50 | 146 | | (5) | 1 | 1 | In | 240 | 3000 | SL | 260 | 3400 | 180 | 2750 | 80/87 | .64 | 432 | 1.80 | 1-Str | PI | Scin | Opt | | 39.57 | 29.59 | 33.12 | | (u) |
| GSO-580 | 256 | Hor | Air | 8 | 4 1/16 x 3 7/8 | 578.0 | 7.50 | 146 | 7.91 | (5) | 1 | 1 | In | 320 | 3000 | SL | 375 | 3000 | 240 | 3730 | 91/98 | .64 | 635 | 1.98 | 1-Str | | Scin | Opt | EM | 57.98 | 19.97 | 33.18 | | |
| GSO-580-B | 256 | Hor | Air | 8 | 4 1/16 x 3 7/8 | 578.0 | 7.30 | 160 | 7.91 | (5) | 1 | 1 | In | 350 | 3000 | SL | 400 | 3300 | 260 | 2750 | 100/130 | .64 | 624 | 1.78 | 1-Str | PI | Scin | Opt | | 57.98 | 19.97 | 33.18 | | |
| R-680-E3A | 202 | Rad | Air | 9 | 4 5/16 x 4 1/2 | 680.4 | 7.00 | 151 | 1.00 | (5) | 1 | 1 | In | 285 | 2200 | SL | 300 | 2300 | 222 | 2000 | 91/96 | .64 | 515 | 1.80 | 1-Str | FL | Scin | Ecl | EM | 37.50 | 43.50 | | | 19.25 |
| Pratt & Whitney Aircraft Wasp Jr-B4 | 123 | Rad | Air | 9 | 5 1/16 x 5 1/2 | 985.0 | 6.00 | 157 | 10.00 | (5) | 1 | 1 | In | 450 | 2300 | 2300 | 450 | 2300 | 300 | 2000 | 80/87 | D | 684 | 1.52 | 1-Str | FL | Scin | Opt | EM | 47.69 | 46.10 | | | 23.37 |
| Wasp Jr-B5 | 123 | Rad | Air | 9 | 5 1/16 x 5 1/2 | 985.0 | 6.00 | 157 | 10.00 | (5) | 1 | 1 | In | 450 | 2300 | 2300 | 450 | 2300 | 300 | 2000 | 80/87 | D | 682 | 1.51 | 1-Str | FL | Scin | Opt | EM | 42.43 | 46.10 | | | 23.37 |
| Wasp-S1H1 | 129 | Rad | Air | 9 | 5 5/8 x 5 5/8 | 1344.0 | 6.00 | 157 | 12.00 | (5) | 1 | 1 | In | 550 | 2200 | 8000 | 600 | 2250 | 400 | 2000 | 80/87 | D | 865 | 1.57 | 1-Str | FL | Scin | Opt | EM | 43.01 | 51.80 | | | 23.37 |
| Wasp-S3H1 | 143 | Rad | Air | 9 | 5 5/8 x 5 5/8 | 1344.0 | 6.00 | 157 | 10.00 | (5) | 1 | 1 | In | 550 | 2200 | 5000 | 600 | 2250 | 400 | 2000 | 80/87 | D | 865 | 1.57 | 1-Str | FL | Scin | Opt | EM | 43.01 | 51.80 | | | 23.37 |
| Wasp-S3H2 | | Rad | Air | 9 | 5 5/8 x 5 5/8 | 1344.0 | 6.00 | 157 | 10.00 | (5) | 1 | 1 | In | 550 | 2200 | 5000 | 600 | 2250 | 400 | 2000 | 80/87 | D | 865 | 1.57 | 1-Str | FL | Scin | Opt | EM | 47.70 | 51.80 | | | 23.37 |
| Twin Wasp-S1C3-G | 166 | Rad | Air | 14 | 5 1/16 x 5 1/2 | 1830.0 | 6.70 | 192 | 7.15 | (5) | 1 | 1 | In | 1050 | 2550 | 7500 | 1200 | 2700 | 700 | 2250 | 91/98 | .562 | 1467 | 1.40 | 1-Str | PI | Scin | Opt | EM | 61.16 | 48.19 | | | 27.00 |
| Twin Wasp-D5 | 230 | Rad | Air | 14 | 5 5/8 x 5 1/2 | 2004.0 | 6.50 | 212 | 7.15 | (5) | 1 | 1 | In | 1200 | 2550 | 6400 | 1450 | 2700 | | | 100/130 | .500 | 1575 | 1.31 | 1-Str | PI | Scin | Opt | EM | 61.02 | 49.10 | | | 27.00 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .....Twin Wasp-2SD13-G | 230 | Rad | Air | 14-5¾x5½ | 2004.0 | 6.50 | 212 | 7.15 | (5) | 1 | 1 | In | 1200 | 2550 | 5000 | 1450 | 2700 | ..... | ..... | 100/130 | .500 | 1595 | 1.33 | 1-Str | Pl | Scin | Opt | EM | 61.02 | 49.10 | ..... | ..... | 27.00 |
| ..... | | (2-Speed Blower Engine) | | | | | | 8.40 | | | | | 1100 | 2550 | 14000 | | | | | | | | | | | | | | | | | | | |
| .....*Double Wasp-CA3 | 231 | Rad | Air | 18-5¾x6 | 2804.0 | 6.75 | 212 | 7.29 | (5) | 1 | 1 | In | 1800 | 2600 | 6000 | 2100 | 2800 | ..... | ..... | 100/130 | .450 | 2317 | 1.29 | 1-Str | Pl | Scin | Opt | EM | 78.40 | 52.80 | ..... | ..... | 33.75 |
| .....*Double Wasp-CA15 | 231 | Rad | Air | 18-5¾x6 | 2804.0 | 6.75 | 242 | 7.29 | (5) | 1 | 1 | In | 1800 | 2600 | 6000 | 2100 | 2800 | ..... | ..... | | | | | | | | | | | | | | | |
| ..... | | (2-Speed Blower Engine) | | | | | 212 | 9.45 | | | | | 1600 | 2600 | 16000 | | | | | 100/130 | .450 | 2350 | 1.47 | 1-Str | Pl | Scin | Opt | EM | 78.40 | 52.80 | ..... | ..... | 33.75 |
| .....*Double Wasp-CA18 | 231 | Rad | Air | 18-5¾x6 | 2804.0 | 6.75 | 242 | 7.29 | (5) | 1 | 1 | In | 1800 | 2600 | 6000 | 2100 | 2600 | ..... | ..... | 100/130 | .450 | 2350 | 1.30 | 1-Str | Pl | Scin | Opt | EM | 78.40 | 52.80 | ..... | ..... | 33.75 |
| ..... | | (2-Speed Blower Engine) | | | | | 212 | 9.10 | | | | | 1600 | 2600 | 14500 | | | | | | | | | | | | | | | | | | | |
| .....*Double Wasp-CB16 | | Rad | Air | 18-5¾x6 | 2804.0 | 6.75 | 242 | 7.29 | (5) | 1 | 1 | In | 1800 | 2600 | 8500 | 2050 | 2700 | ..... | ..... | 100/130 | .450 | 2390 | 1.33 | 1-Str | Pl | Scin | Opt | EM | 81.40 | 52.80 | ..... | ..... | 33.75 |
| ..... | | (2-Speed Blower Engine) | | | | | 206 | 8.40 | | | | | 1600 | 2600 | 16000 | | | | | | | | | | | | | | | | | | | |
| .....*Double Wasp-CB3 | | Rad | Air | 18-5¾x6 | 2804.0 | | 195 | | (5) | 1 | 1 | In | 1800 | 2600 | 8500 | 2400 | 2800 | ..... | ..... | 100/130 | .450 | 2357 | 1.31 | 1-Str | Pl | Scin | | EM | 81.40 | 52.80 | ..... | ..... | ..... |
| .....*Double Wasp-CB4 | | Rad | Air | 18-5¾x6 | 2804.0 | | 206 | | (5) | 1 | 1 | In | 1900 | 2600 | 7000 | 2500 | 2800 | ..... | ..... | 108/135 | .450 | 2357 | 1.24 | 1-Str | Pl | Scin | | EM | 81.40 | 52.80 | ..... | ..... | ..... |
| .....*Double Wasp-CB17 | | Rad | Air | 18-5¾x6 | 2804.0 | | 206 | | (5) | 1 | 1 | In | 1900 | 2600 | 7000 | 2500 | 2800 | ..... | ..... | 108/135 | .450 | 2390 | 1.26 | 1-Str | Pl | Scin | | EM | 81.40 | 52.80 | ..... | ..... | ..... |
| .....*Wasp Major-CB2 | | Rad | Air | 28-5¾x6 | 4363.0 | | 200 | | (5) | 1 | 1 | In | 2800 | 2550 | 3500 | 3250 | 2700 | ..... | ..... | 108/135 | .375 | 3670 | 1.31 | 1-Str | Pl | Scin | | EM | 96.50 | 55.00 | ..... | ..... | ..... |
| Ranger.....6-440C-2 | 216 | IV-L | Air | 6-4½x5½ | 441.0 | 6.00 | 128 | No | (5) | 1 | 1 | OH | 175 | 2450 | SL | 175 | 2450 | 131 | 2200 | 65 | D | 382 | 2.18 | 1-Str | FL | Scin | Opt | Opt | 53.16 | 33.50 | 21.87 | ..... | 26.87 |
| .....6-440C-5 | 216 | IV-L | Air | 6-4½x5½ | 441.0 | 7.50 | 146 | No | (5) | 1 | 1 | OH | 200 | 2450 | SL | 200 | 2450 | 150 | 2230 | 87 | D | 382 | 1.91 | 1-Str | FL | Scin | Opt | Opt | 53.16 | 33.50 | 21.87 | ..... | 26.87 |
| Wright.....Cyclone 749C18BD | | Rad | Air | 18-6½x6⅞ | 3347.0 | 6.50 | 207 | 6.46 | (5) | 1 | 1 | In | 2100 | 2400 | 5500 | 2500 | 2800 | 1470 | 2300 | 100/130 | .4375 | 2884 | 1.37 | 1-Ben | Pl | Scin | Opt | EM | 79.47 | 55.62 | ..... | ..... | 40.75 |
| ..... | | (2-Speed Blower Engine) | | | | | | 8.67 | | | | | 1600 | 2400 | 16000 | 1900 | 2600 | 1400 | 2300 | | | | | | | | | | | | | | | |
| .....Cyclone 957C7BA1 | | Rad | Air | 7-6½x6⅞ | 1300.0 | 6.20 | 178 | 7.21 | (5) | 1 | 1 | In | 700 | 2400 | 5000 | 800 | 2600 | 490 | 2200 | 91/96 | .6525 | 1015 | 1.04 | 1-Str | Pl | Bos | Opt | EM | 48.12 | ..... | 50.45 | ..... | 28.00 |
| .....Cyclone 959C9HE1 | | Rad | Air | 9-6½x6⅞ | 1823.0 | 6.80 | 222 | 7.21 | (5) | 1 | 1 | In | 1275 | 2500 | 3500 | 1525 | 2800 | 890 | 2300 | 122/145 | .4375 | 1398 | 1.09 | 1-Str | Pl | Bos | Opt | EM | 48.50 | ..... | 54.95 | ..... | 30.25 |
| ..... | | (2-Speed Blower Engine) | | | | | | 8.69 | | | | | 1125 | 2500 | 10600 | 1250 | 2700 | 785 | 2300 | | | | | | | | | | | | | | | |
| .....Cyclone 955C9HE1 | | Rad | Air | 9-6½x6⅞ | 1823.0 | 6.80 | 222 | 7.21 | (5) | 1 | 1 | In | 1275 | 2500 | 3500 | 1525 | 2800 | 890 | 2300 | 100/130 | .4375 | 1413 | 1.10 | 1-Str | Pl | Bos | Opt | EM | 48.50 | ..... | 54.95 | ..... | 30.25 |
| ..... | | (2-Speed Blower Engine) | | | | | | 8.69 | | | | | 1125 | 2500 | 10600 | 1250 | 2700 | 785 | 2300 | | | | | | | | | | | | | | | |
| .....Cyclone 956C18CA | | Rad | Air | 18-6½x6⅞ | 3347.0 | 6.50 | 210 | 6.46 | (5) | 1 | 1 | In | 2300 | 2600 | ..... | 2700 | 2900 | 1600 | 2300 | 115/145 | .4371 | 2848 | 1.23 | 1-Str | IM | Bos | Opt | EM | 81.93 | ..... | 55.62 | ..... | ..... |
| ..... | | (2-Speed Blower Engine) | | | | | | 8.67 | | | | | 1900 | 2600 | ..... | 2100 | 2600 | | | | | | | | | | | | | | | | | |
| .....Turbo-Cyclone R3350-36W | | Rad | Air | 18-6½x6⅞ | 3347.0 | 6.70 | 212 | 6.46 | (5) | 1 | 1 | In | 2600 | 2600 | ..... | 3250 | 2900 | 1600 | 2200 | 115/145 | .4375 | 3230 | 1.24 | 1-Str | Pl | Scin | Opt | EM | 91.80 | ..... | 56.25 | ..... | ..... |

**ABBREVIATIONS**—

*—Equipped for water injection
†—Power rating without water injection
(a)—Cooled by fan.
(s)—A longitudinal type mounting is provided by 4 mounting bosses integral with crankcase.
(t)—A rear type mounting is provided by 4 mounting bosses integral with crankcase.
(u)—A rear type mounting is provided by 5 mounting bosses, 4 of which are integral with the crankcase sections and the remaining boss is located at rear of the oil sump.
(1)—Nickel iron with aluminum head.
(5)—Steel with aluminum head.
(6)—Aluminum with cast iron sleeves.
AL—Electric Auto-Lite Co.
Ben—Bendix Aviation Corp.
BM—Bendix or Marvel Schebler.
Bos—American Bosch Corp.
D—Direct. DR—Delco-Remy Div.
Ecl—Eclipse-Pioneer Div.
EM—Electric motor.
Eis—Eisemann Corp.
ES—Edison, Inc. (Splitdorf).
E-Sc—Eisemann or Scintilla.
F-Fl—Float or fuel injector.
FL—Float.
HE—Hand crank or electric motor.
HO—Horizontally opposed in side of each cylinder.
Hol—Holley Carburetor Co.
Hor—Horizontally opposed.
IL—In-Line. IM—Impeller injection
In—In head with push rods and rocker arms.
IV-L—Inverted, in line.
MS—Marvel-Schebler Carburetor Div.
N—No or none.
OH—Overhead camshaft.
Opt—Optional.
P-FL—Pressure or float injection.
Pl—Pressure injection. Rad—Radial.
PS—Propeller swing.
Scin—Scintilla Magneto Div.
SM—Stromberg or Holley.
SL—Sea-Level.
SM—Stromberg or Marvel-Schebler.
Str—Stromberg-Elmira Div.
Ver—Vertically opposed.

***For Directory of the Manufacturers listed above, see page 190.***

## 1950 Personal and Executive Aircraft Shipments

(Personal Aircraft council, Aircraft Industries Association)

| Manufacturer | Number of Aircraft | Manufacturer's Net Billing Price |
|---|---|---|
| Aeronca | 171 | $403,000 |
| Beech | 489 | 6,516,000 |
| Bellanca | 73 | 599,000 |
| Cessna | 1,134 | 5,506,000 |
| Emigh-Trojan | 14 | 35,000 |
| Engineering & Research | 21 | 69,000 |
| Luscombe | 22 | 61,000 |
| Mooney | 51 | $82,000 |
| Piper | 1,108 | 3,092,000 |
| Ryan | 250 | 2,618,000 |
| Taylorcraft | 22 | 47,000 |
| Texas Engineering | 23 | 96,000 |
| Total | 3,386† | $19,157,000 |

† Includes 6 Call Airs valued at $30,000.

| MAKE AND MODEL | Designed for Use | Number of Cycles | ENGINE: Type | No. of Cylinders | Bore and Stroke (In.) | Total Displacement (Cu. In.) | Compression Ratio (to — 1) | Valve Location | Horsepower: Rated at RPM | Horsepower: Continuous at RPM | Torque—Lb. Ft. at RPM | Weight (Lb.) | GOVERNOR: Used | GOVERNOR: Type | Ignition System Type | FUEL SYSTEM: Type | FUEL SYSTEM: Make | Fuel Used | Starting Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AIR COOLED** | | | | | | | | | | | | | | | | | | | |
| **Briggs & Stratton** | | | | | | | | | | | | | | | | | | | |
| 5S | General Purpose | 4 | Ver | 1 | 2x1½ | 4.71 | 5.29 | L | 1.0-3200 | .85-3200 | 1.6-3200 | 30 | Y | Av | Mag | MV | Own | G | Rr |
| 6S | General Purpose | 4 | Ver | 1 | 2x2 | 6.28 | 5.86 | L | 1.6-3200 | 1.4-3200 | 2.6-3200 | 33 | Y | Av | Mag | MV | Own | G | Rr |
| 6MSF | Lm | 4 | Hor | 1 | 2x2 | 6.28 | 5.86 | L | 1.6-3200 | 1.4-3200 | 2.6-3200 | 38 | Y | Av | Mag | MV | Own | G | R |
| N | General Purpose | 4 | Ver | 1 | 2x2 | 6.28 | 5.86 | L | 2.0-3600 | 1.7-3600 | 2.9-3600 | 33 | Y | MA | Mag | Car | Own | G | Rr |
| 6HF | Lm | 4 | Hor | 1 | 2x2 | 6.28 | 5.86 | L | 2.0-3600 | 1.7-3600 | 2.9-3600 | 39 | Y | Av | Mag | Car | Own | G | R |
| 8 | General Purpose | 4 | Ver | 1 | 2¼x2 | 7.95 | 5.40 | L | 2.5-3600 | 2.1-3600 | 3.7-3600 | 36 | Y | MA | Mag | Car | Own | G | Rr |
| 8HF | Lm | 4 | Hor | 1 | 2¼x2 | 7.95 | 5.40 | L | 2.5-3600 | 2.1-3600 | 3.7-3600 | 42 | Y | Av | Mag | Car | Own | G | R |
| 9 | General Purpose | 4 | Ver | 1 | 2¼x2½ | 8.95 | 5.40 | L | 3.1-3200 | 2.6-3200 | 5.1-3200 | 61 | Y | Me | Mag | Car | Own | G | HR |
| 14 | General Purpose | 4 | Ver | 1 | 2⅝x2½ | 14.21 | 5.40 | L | 5.1-3200 | 4.3-3200 | 8.4-3200 | 76 | Y | Me | Mag | Car | Own | G | HR |
| 23 | General Purpose | 4 | Ver | 1 | 3x3½ | 22.97 | 5.40 | L | 8.2-3200 | 7.0-3200 | 13.5-3200 | 98 | Y | Me | Mag | Car | Own | G | HR |
| **Clinton** | | | | | | | | | | | | | | | | | | | |
| 350 | General Purpose | 4 | Ver | 1 | 2x1½ | 4.71 | 5.20 | L | 1.1-3600 | 1.0-3200 | 1.5-3600 | 27 | Y | Av | Mag | MV | Own | G | Rr |
| A300 | General Purpose | 4 | Ver | 1 | 2x1½ | 4.71 | 5.20 | L | 1.3-3600 | 1.2-3200 | 1.9-3600 | 29 | Y | Av | Mag | Car | Cart | G | Rr |
| VS300 | General Purpose | 4 | Hor | 1 | 2x1½ | 4.71 | 5.20 | L | 1.3-3600 | 1.2-3200 | 1.9-3600 | 35 | Y | Av | Mag | Car | Cart | G | Rr |
| 650 | General Purpose | 4 | Ver | 1 | 2x1⅞ | 5.89 | 5.60 | L | 1.6-3600 | 1.5-3200 | 2.3-3600 | 35 | Y | Av | Mag | MV | Own | G | Rr |
| B700 | General Purpose | 4 | Ver | 1 | 2x1⅞ | 5.89 | 5.60 | L | 2.0-3600 | 1.8-3200 | 2.9-3600 | 36 | Y | Me | Mag | Car | Cart | G | Rr |
| VS700 | General Purpose | 4 | Hor | 1 | 2x1⅞ | 5.89 | 5.60 | L | 2.0-3600 | | 2.9-3600 | 36 | Y | Av | Mag | Car | Cart | G | Rr |
| C1100 | General Purpose | 4 | Ver | 1 | 2⅝x1⅞ | 8.30 | 6.20 | L | 3.0-3600 | 2.9-3200 | 4.4-3600 | 42 | Y | Me | Mag | Car | Cart | G | Rr |
| **Continental** | | | | | | | | | | | | | | | | | | | |
| AA7 | General Purpose | 4 | (a) | 1 | 2½x2 | 7.10 | 5.70 | L | 1.6-2600 | 1.5-2600 | 3.03-2600 | 41 | Y | Av | Mag | Car | Zen | G | PBR |
| AA7B | General Purpose | 4 | (a) | 1 | 2½x2 | 7.10 | 6.00 | L | 2.18-3600 | 2.0-3400 | 3.0-3400 | 41 | Y | Av | Mag | Car | Zen | G | PBR |
| AU7 | General Purpose | 4 | (a) | 1 | 2½x2 | 7.10 | 5.70 | L | 1.6-2600 | 1.5-2600 | 3.03-2600 | 41 | Y | Av | Mag | Car | Zen | G | PBR |
| AU7B | General Purpose | 4 | (a) | 1 | 2½x2 | 7.10 | 6.00 | L | 2.18-3600 | 2.0-3400 | 3.0-3400 | 41 | Y | Av | Mag | Car | Zen | G | PBR |
| AW-7 | Lm | 4 | (b) | 1 | 2½x2 | 7.10 | 5.70 | L | 1.6-2600 | 1.5-2600 | 3.03-2600 | 41 | Y | Av | Mag | Car | Zen | G | BR |
| AW-7B | Lm | 4 | (b) | 1 | 2½x2 | 7.10 | 6.00 | L | 2.18-3600 | 2.0-3400 | 3.0-3400 | 41 | Y | Av | Mag | Car | Zen | G | BR |
| AC-6 | General Purpose | 4 | (a) | 1 | 2½x2 | 7.10 | 5.70 | L | 1.6-3050 | 1.5-3000 | 2.9-2000 | 37 | Y | Av | Mag | MV | Own | G | BR |
| AC-5 | General Purpose | 4 | (a) | 1 | 2½x2 | 7.10 | 5.70 | L | 1.1-2600 | 1.0-2600 | 2.15-1800 | 37 | Y | Av | Mag | MV | Own | G | Rc |
| **Cushman** | | | | | | | | | | | | | | | | | | | |
| Husky-M6 | General Purpose | 4 | Ver | 1 | 2⅝x2⅝ | 12.30 | 4.70 | L | 3.0-3000 | 2.8-3000 | 5.2-2000 | 65 | Y | Fb | Mag | Car | Tll | G | Rr |
| Husky-M7 | General Purpose | 4 | Ver | 1 | 2⅝x2⅝ | 14.90 | 5.40 | L | 4.5-3000 | 3.8-3000 | 7.9-2000 | 65 | Y | Fb | Mag | Car | Tll | G | Rr |
| Husky-M8 | General Purpose | 4 | Ver | 1 | 2⅞x2⅝ | 17.89 | 5.90 | L | 5.0-3000 | 4.3-3000 | 9.5-2000 | 65 | Y | Fb | Mag | Car | Tll | G | Rr |
| **Gladden** | | | | | | | | | | | | | | | | | | | |
| 40 | General Purpose | 4 | Ver | 1 | 2½x3 | 14.70 | 4.50 | L | 4.3-3200 | 4.3-3200 | 8.4-2200 | 79 | Y | Fb | Mag | Car | MS | G,K | Rr |
| 40M | Marine | 4 | Ver | 1 | 2½x3 | 14.70 | 4.50 | L | 4.3-3200 | 4.3-3200 | 8.4-2200 | 80 | Y | Fb | Mag | Car | MS | G | Rr |
| AB | General Purpose | 4 | Hor | 1 | 2⅝x3 | 17.80 | 5.40 | L | 5.0-2600 | 5.0-2600 | 9.5-2500 | 68 | Y | Av | Mag | Car | MS | G,K | Rr |
| 50 | General Purpose | 4 | Ver | 1 | 2½x3 | 14.70 | 5.70 | L | 5.25-3200 | 5.25-3200 | 9.2-2500 | 81 | Y | Fb | Mag | Car | MS | G | Rr |
| 75 | General Purpose | 4 | Ver | 1 | 2⅞x3 | 19.40 | 5.70 | L | 7.0-3200 | 7.0-3200 | 13.5-2200 | 83 | Y | Fb | Mag | Car | MS | G,K | Rr |
| 75ES | General Purpose | 4 | Ver | 1 | 2⅞x3 | 19.40 | 5.70 | L | 6.5-3200 | 6.5-3200 | 11.8-3200 | 136 | N | ..... | Bat | Car | MS | G | Ele |
| 75M | Marine | 4 | Ver | 1 | 2⅞x3 | 19.40 | 5.70 | L | 7.0-3200 | 7.0-3200 | 11.8-3200 | 86 | N | ..... | Mag | Car | MS | G | Rr |
| 75MES | Marine | 4 | Ver | 1 | 2⅞x3 | 19.40 | 5.70 | L | 6.5-3200 | 6.5-3200 | 11.0-3200 | 138 | N | ..... | Bat | Car | MS | G | Ele |
| MC | Motorcycle | 4 | Ver | 1 | 2⅞x3 | 19.40 | 7.00 | L | 9.0-4000 | 7.0-3000 | 12.3-3000 | 65 | N | ..... | Mag | Car | Am | G | Pe |
| **Homelite** | | | | | | | | | | | | | | | | | | | |
| 20 | GS,Pu,Ca,Bl | 2 | Ver | 1 | 2⅝x1½ | 6.70 | 5.50 | (c) | 3.5-3600 | 3.5-3600 | ..... | 20 | Y | Va | Mag | Car | Tll | G,K | Hc |
| 23 | GS,Pu,Bl | 2 | Ver | 1 | 2¼x2½ | 8.40 | 5.50 | (c) | 4.0-3600 | 4.0-3600 | ..... | 30 | Y | Va | Mag | Car | Own | G,K | Hc |
| 24 | General Purpose | 2 | Ver | 1 | 2⅝x2½ | 11.40 | 5.50 | (c) | 6.0-3600 | 6.0-3600 | ..... | 40 | Y | Va | Mag | Car | OZ | G,K | Hc |
| 25 | GS,Pu,CS,Bl | 2 | Hor | 2 | 2⅝x2½ | 22.80 | 5.50 | (c) | 10.0-3600 | 10.0-3600 | ..... | 55 | Y | Va | Mag | Car | Own | G,K | Hc |
| **Jacobs** | | | | | | | | | | | | | | | | | | | |
| O-60 | GS,Co,Pu,Af | 4 | Hor | 2 | 3½x3 | 57.7 | 5.80 | L | 15.0-2400 | 13-2400 | 35-2100 | 150 | Y | Fb | Mag | Car | Zen | G | HP |
| **Jacobsen** | | | | | | | | | | | | | | | | | | | |
| J100 | Lm | 2 | Hor | 1 | 2x1½ | 4.70 | 5.50 | .... | 1.80-3600 | 1.50-3600 | 2.20-3600 | 19½ | Y | Av | Mag | Car | Tll | G | Rr |
| J150 | Lm | 2 | Hor | 1 | 2¼x1⅝ | 6.90 | 5.00 | .... | 1.75-3000 | 1.75-3000 | 3.00-3000 | 35½ | Y | Av | Mag | Car | Tll | G | Rr |
| **Lauson** | | | | | | | | | | | | | | | | | | | |
| LMH | GS,Lm | 4 | Ver | 1 | 1⅝x1½ | 3.11 | 5.90 | L | 1.05-3600 | .75-3600 | 1.52-3600 | 22 | Y | Fb | Mag | Car | Tll | G | R |
| RSH | GS,Co,Pu,Re | 4 | Ver | 1 | 2x1⅞ | 5.90 | 5.80 | L | 2.00-3600 | 1.50-3600 | 2.90-3600 | 28 | Y | Fb | Mag | Car | Tll | G | R |
| TLH | GS,Co,Pu,Re | 4 | Ver | 1 | 2½x2⅛ | 8.94 | 5.80 | L | 3.00-3200 | 2.50-3200 | 4.70-3200 | 52 | Y | Fb | Mag | Car | Tll | G | R |
| PAH | General Purpose | 4 | Ver | 1 | 2⅞x2⅝ | 17.85 | 5.00 | L | 5.50-3000 | 4.50-3000 | 9.50-2700 | 85 | Y | Fb | Mag | Car | Tll | G | R |
| TLV | Lm | 4 | Hor | 1 | 2½x2⅛ | 8.94 | 5.80 | L | 3.00-3200 | 2.50-3200 | 4.70-3200 | 58 | Y | Fb | Mag | Car | Tll | G | R |
| 55SV300 | Lm | 4 | Hor | 1 | 2x1⅞ | 5.90 | 5.80 | L | 1.60-3200 | 1.35-3200 | 2.70-3200 | 33 | Y | Fb | Mag | MV | Own | G | R |
| RSV800 | Lm | 4 | Hor | 1 | 2x1⅞ | 5.90 | 5.80 | L | 2.00-3600 | 1.50-3600 | 2.90-3600 | 33 | Y | Fb | Mag | Car | Tll | G | R |
| 55S100 | Lm | 4 | Ver | 1 | 2x1⅞ | 5.90 | 5.80 | L | 1.60-3200 | 1.35-3200 | 2.70-3200 | 33 | Y | Fb | Mag | MV | Own | G | R |
| 55A, 55AB | General Purpose | 4 | Ver | 1 | 2x1⅞ | 5.90 | 5.80 | L | 2.00-3600 | 1.50-3600 | 2.90-3600 | (e) | Y | Fb | Mag | Car | Tll | G | R |
| **McCulloch** | | | | | | | | | | | | | | | | | | | |
| 19 | GS | 2 | Hor | 1 | 2x1½ | 4.71 | 7.00 | .... | 3.10-4200 | 2.6-3800 | 3.76-4000 | 21 | N | ..... | Mag | Car | Own | G | Rc |
| 2100 | GS,Pu,Af,Lm | 2 | Hor | 1 | 2x1½ | 4.71 | 5.90 | .... | 1.80-3800 | 1.25-3200 | 2.20-3000 | 17 | Y | Me | Mag | Car | Own | G | Rc |
| 3-25 | CS,Af | 2 | Ver | 1 | 2x1½ | 4.71 | 6.40 | .... | 3.00-4200 | 2.50-3600 | 4.60-3000 | 25 | N | ..... | Mag | Car | Own | G | Rc |
| 1200D | Lm,Pu | 2 | Hor | 1 | 2x2 | 6.28 | 6.70 | .... | 3.00-3500 | 2.5-2500 | 5.10-2500 | 24 | Y | Pn | Mag | Car | Tll | G | Bo |
| 1225B | CS,Pu | 2 | Hor | 1 | 2¼x2 | 7.95 | 6.50 | .... | 5.10-4200 | 4.4-3200 | 6.30-3000 | 25 | N | ..... | Mag | Car | Own | G | Rc |
| **Novo** | | | | | | | | | | | | | | | | | | | |
| DA33 | General Purpose | 4 | Ver | 1 | 3½x4 | 33.10 | 5.80 | L | 8.50-2800 | 6.8-2800 | 18.6-1600 | 188 | Y | Fb | Mag | Car | MS | G | Hc |
| CWR66 | General Purpose | 4 | Ver | 2 | 3½x4 | 66.40 | 6.00 | L | 16.0-2200 | 12.0-2200 | 48.0-1200 | 335 | Y | Fb | Mag | Car | ZEM | NgG | HE |
| CWR133 | General Purpose | 4 | Ver | 4 | 3½x4 | 132.80 | 6.00 | L | 32.0-1200 | 25.6-1200 | 96.0-1200 | 505 | Y | Fb | Mag | Car | ZEM | NgG | HE |
| RA23 | General Purpose | 4 | Ver | 1 | 2⅞x3½ | 22.70 | 6.00 | L | 7.00-3000 | 5.6-3000 | 18.2-1800 | 150 | Y | Fb | Mag | Car | ZEM | G | HR |
| **Onan** | | | | | | | | | | | | | | | | | | | |
| AAE | GS | 4 | Ver | 1 | 2x2 | 6.28 | 5.50 | L | .80-2100 | .80-2100 | 2.0-2100 | 178 | Y | ‡ | Bat | Car | Zen | G | ER |
| AH | GS,In | 4 | Ver | 1 | 2½x2½ | 11.05 | 6.23 | L | 3.3-3000 | 2.6-3000 | 6.0-3000 | 55 | Y | ‡ | BM | Car | Zen | G | ER |
| Com-1B | In | 4 | Ver | 1 | 2½x2½ | 16.30 | 4.10 | L | 3.45-2400 | 2.7-2400 | 7.1-2400 | 124 | Y | ‡ | Mag | Car | Zen | NgG | ER |
| 1B | GS | 4 | Ver | 1 | 2½x2½ | 16.30 | 4.80 | .... | 2.50-1800 | 2.5-1800 | 7.3-1800 | 1177 | Y | ‡ | Mag | Car | Zen | NgG | Rr |
| BH | GS,In | 4 | Op | 2 | 2½x2½ | 22.10 | 6.23 | .... | 6.70-3000 | 5.3-3000 | 12.0-3000 | 85 | Y | ‡ | BM | Car | MS | G | ER |
| CK | General Purpose | 4 | Op | 2 | 3x2½ | 31.80 | 6.20 | L | 10.1-3000 | 8.6-3000 | 18.0-3000 | 95 | Y | ‡ | BM | Car | MS | NgG | ER |
| LK | GS,In | 4 | Ver | 1 | 3x2½ | 19.40 | 5.80 | L | 4.5-3000 | 4.0-3000 | 10.0-1800 | .... | Y | Ce | BM | Car | Zen | G | HE |
| **Reo** | | | | | | | | | | | | | | | | | | | |
| 582-556 | Lm | 4 | * | 1 | 2x1⅝ | 5.50 | 6.22 | L | 1.5-3600 | 1.2-3000 | 2.35-2400 | 29 | Y | Av | Mag | Car | Cart | G | HR |
| 211E, 338E, 400E, 410E | Lm | 4 | * | 1 | 2x1⅝ | 5.50 | 6.22 | L | 1.75-4000 | 1.40-3400 | 2.32-2400 | 29 | Y | Av | Mag | Car | Cart | G | Hc |
| 404E, 420E | Lm | 4 | * | 1 | 2x1⅝ | 5.50 | 6.22 | L | 1.25-3000 | 1.10-2500 | 2.20-3000 | 27 | Y | Av | Mag | MV | Own | G | Hc |
| **Salsbury** | | | | | | | | | | | | | | | | | | | |
| 600 | General Purpose | 4 | * | 1 | 3x2⅝ | 19.40 | ..... | I | 6.5-3200 | 3.50-2400 | ..... | 72 | Y | Ce | Mag | Car | MS | G | Pe |
| **Ultimotor** | | | | | | | | | | | | | | | | | | | |
| U200 | General Purpose | 4 | Ver | 1 | 2½x2⅛ | 8.94 | 5.88 | I | 3.0-3000 | 2.5-2500 | 4.9-2500 | 43 | Y | Fb | Mag | Car | MS | G | Rr |
| 12 | General Purpose | 4 | Ver | 1 | 2x2⅛ | 7.07 | 6.13 | I | 2.0-3000 | 1.5-2200 | 3.7-2400 | 38 | Y | Fb | Mag | Car | Zen | G | Hc |
| U23 | General Purpose | 4 | Ver | 1 | 2½x2⅛ | 8.94 | 5.88 | I | 3.10-3200 | 2.50-2500 | 5.50-3000 | 43 | Y | Fb | Mag | Car | Zen | G | Hc |

For abbreviations, see page 177

**For Directory of the Manufacturers listed above, see page 190.**

# GASOLINE ENGINES

| MAKE AND MODEL | Designed for Use | ENGINE: Number of Cycles | Type | No. of Cylinders | Bore and Stroke (In.) | Total Displacement (Cu. In.) | Compression Ratio (to 1) | Valve Location | Horsepower: Rated at RPM | Horsepower: Continuous at RPM | Torque—Lb. Ft. at RPM | Weight (Lb.) | GOVERNOR: Used | GOVERNOR: Type | Ignition System Type | FUEL SYSTEM: Type | FUEL SYSTEM: Make | Fuel Used | Starting Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AIR COOLED—Continued** | | | | | | | | | | | | | | | | | | | |
| United | 1½ H.P. | General Purpose | 4 | Ver | 1 | 2⅝x2½ | 11.08 | ..... | L | ..... | ..... | ..... | 70 | Y | ..... | Mag | Car | Til | G | Pe |
| | 2 H.P. | General Purpose | 4 | Ver | 1 | 2⅝x2½ | 13.53 | ..... | L | ..... | ..... | ..... | 70 | Y | ..... | Mag | Car | Til | G | Pe |
| | 4 H.P. | General Purpose | 4 | Ver | 1 | 2⅝x2½ | 14.89 | ..... | L | ..... | ..... | ..... | 75 | Y | ..... | Mag | Car | Til | G | Pe |
| Wisconsin | ABN | General Purpose | 4 | Ver | 1 | 2¼x2⅝ | 13.50 | 5.65 | L | 4.6-3600 | 3.7-3600 | 7.5-2400 | 77 | Y | Ce | Mag | Car | MS | G | Bp |
| | AKN | General Purpose | 4 | Ver | 1 | 2⅞x2⅝ | 17.80 | 5.13 | L | 6.0-3600 | 4.8-3600 | 10.4-2400 | 77 | Y | Ce | Mag | Car | MS | G | Bp |
| | AEH | General Purpose | 4 | Ver | 1 | 3x3½ | 23.00 | 4.90 | L | 6.1-2600 | 4.9-2600 | 13.0-2000 | 130 | Y | Ce | Mag | Car | Zen | G | Bp |
| | AEN | General Purpose | 4 | Ver | 1 | 3x3½ | 23.00 | 5.00 | ... | 7.5-3000 | 6.0-3000 | 15.4-2200 | 110 | Y | Ce | Mag | Car | Zen | G | Bp |
| | AFH | General Purpose | 4 | Ver | 1 | 3½x4 | 33.20 | 4.60 | L | 7.2-2200 | 5.75-2200 | 19.8-1400 | 180 | Y | Ce | Mag | Car | Zen | G | Hc |
| | AGH | General Purpose | 4 | Ver | 1 | 3½x4 | 38.50 | 4.60 | L | 8.4-2200 | 6.7-2200 | 24.2-1400 | 180 | Y | Ce | Mag | Car | Zen | G | Hc |
| | AHH | General Purpose | 4 | Ver | 1 | 3⅝x4 | 41.30 | 4.60 | L | 9.2-2200 | 7.4-2200 | 25.8-1300 | 180 | Y | Ce | Mag | Car | Zen | G | Hc |
| | TE | GS,Co,Pu,Af | 4 | Ver | 2 | 3x3½ | 45.90 | 4.50 | L | 11.2-2600 | 9.0-2600 | 27.1-1600 | 220 | Y | Ce | Mag | Car | Zen | G | Hc |
| | TF | General Purpose | 4 | Ver | 2 | 3¼x3½ | 53.90 | 4.67 | L | 13.3-2600 | 10.6-2600 | 32.0-1600 | 220 | Y | Ce | Mag | Car | Zen | G | Hc |
| | VE4 | General Purpose | 4 | Vee | 4 | 3x3½ | 91.90 | 4.60 | L | 22.0-2600 | 17.6-2600 | 50.0-1600 | 295 | Y | Ce | Mag | Car | Zen | G | Hc |
| | VF4 | General Purpose | 4 | Vee | 4 | 3¼x3½ | 107.70 | 4.60 | L | 25.0-2400 | 20.0-2400 | 56.2-1600 | 295 | Y | Ce | Mag | Car | Zen | G | Hc |
| | VP4 | General Purpose | 4 | Vee | 4 | 3½x4 | 154.00 | 4.67 | L | 31.0-2200 | 24.8-2200 | 88.0-1400 | 410 | Y | Ce | Mag | Car | MS | G | Hc |
| **WATER COOLED** | | | | | | | | | | | | | | | | | | | |
| Cushman | Cub R-14 | General Purpose | 4 | Hor | 1 | 3¼x4½ | 37.33 | 4.50 | L | 3.0-850 | 3.0-850 | 18.4-600 | 195 | Y | Fb | Mag | MV | Own | G,K,Ng | Hc |
| | Cub R-20 | General Purpose | 4 | Hor | 1 | 3½x4½ | 43.29 | 4.10 | L | 3.7-850 | 3.7-850 | 22.5-700 | 235 | Y | Fb | Mag | MV | Own | G,K,Ng | Hc |
| | Cub R-30 | General Purpose | 4 | Hor | 1 | 3¾x4½ | 49.70 | 4.64 | L | 4.5-850 | 4.5-850 | 28.4-900 | 245 | Y | Fb | Mag | MV | Own | G,K,Ng | Hc |
| | Cub R-40 | General Purpose | 4 | Hor | 1 | 4x4½ | 56.50 | 5.10 | L | 5.4-850 | 5.4-850 | 35.0-900 | 256 | Y | Fb | Mag | MV | Own | G,K,Ng | Hc |
| Kermath | | Tr,In,M | 4 | Ver | 1 | 2⅝x2⅝ | 14.29 | 5.00 | L, | 5-3200 | ..... | 10-2700 | 62 | Y | ..... | Mag | Car | Zen | G | ER |
| | | Tr,In,M | 4 | Ver | 2 | 2⅝x2⅝ | 28.40 | 5.00 | L/ | 10-3200 | ..... | 19-2700 | 86 | Y | ..... | Mag | Car | Zen | G | ER |
| Le Roi | B45 | General Purpose | 4 | Ver | 2 | 2⅞x3½ | 45.40 | 5.80 | L | 10.4-2200 | 8.3-2000 | 28.0-1400 | 450 | Y | Fb | BM | CM | ZE | G,D,Ng | HE |
| | D91 | General Purpose | 4 | Ver | 4 | 2⅞x3½ | 90.80 | 5.80 | L | 22.0-2200 | 17.0-2000 | 60.0-1500 | 510 | Y | Fb | BM | CM | ZE | G,D,Ng | HE |
| | D140 | General Purpose | 4 | Ver | 4 | 3½x3⅝ | 140.00 | 5.85 | I | 33.5-2400 | 28.5-2200 | 94.0-1300 | 650 | Y | Fb | BM | CM | ZE | G,D,Ng | HE |
| Onan | W3M or S | GS | 4 | Ver | 2 | 3x2⅝ | 38.80 | 5.50 | ... | 7.1-1800 | 7.1-1800 | 20.4-1850 | 1450 | Y | ‡ | BM | Car | Zen | G,D,Ng | HE |
| United | 2R14 | Af | 4 | Hor | 1 | 3¼x4½ | 37.30 | ..... | L | ..... | ..... | ..... | 195 | Y | (d) | Mag | Car | Til | G,K,D | Hc |
| | 3R20 | Af | 4 | Hor | 1 | 3½x4½ | 43.25 | ..... | L | ..... | ..... | ..... | 235 | Y | (d) | Mag | Car | Til | G,K,D | Hc |
| | 4R30 | Af | 4 | Hor | 1 | 3¾x4½ | 49.75 | ..... | L | ..... | ..... | ..... | 245 | Y | (d) | Mag | Car | Til | G,K,D | Hc |
| Universal | AFTC | GS | 4 | Ver | 2 | 3x3½ | 49.50 | 5.79 | L | 5.0-1200 | 6.0-1350 | 25.0-1200 | 399 | Y | Me | BM | Car | Str | G | HE |
| | AFC | GS,In | 4 | Ver | 4 | 3x3½ | 99.00 | 5.79 | L | 19.0-1800 | 18.0-1800 | 53.0-1800 | .... | Y | Me | BM | Car | Str | G,Ng | HE |

**ABBREVIATIONS**

^—Cylinder 45° from horisontal.
†—Weight includes generator.
‡—Flyweights on camshaft.
(a)—Inclined 20° up from horisontal.
(b)—Vertical shaft engine.
(c)—55A—33 lb.; 55AB—28 lb.
(d)—Automatic—controlled by flywheel.
(e)—Rotary intake valve in crankcase.
**Af**—Auxiliary farm implement equipment.
**Am**—Amal.
**Av**—Air vane.
**Bat**—Battery.
**Bl**—Blowers.
**BM**—Battery and magneto.
**Bp**—Belt or pulley.
**BR**—Belt, pulley, or recoil.
**Car**—Carburetor.
**Cart**—Carter Carburetor Corp.
**Ce**—Centrifugal.
**CM**—Carburetor or mixing valve.
**Co**—Air compressor.
**CS**—Chain saws.
**D**—Distillate.
**Ele**—Electric.
**ER**—Electric or rope.
**Fb**—Flyball.
**G**—Gasoline.
**GS**—Generator sets.
**Hc**—Hand crank.
**HE**—Hand crank or electric.
**Hor**—Horizontal.
**HP**—Hand crank, belt or pulley.
**HR**—Hand crank or rope.
**I**—In head.
**In**—Industrial.
**K**—Kerosene.
**L**—"L" head.
**Lm**—Lawn mowers.
**MA**—Mechanical or air vane.
**Mag**—Magneto.
**M**—Marine.
**Me**—Mechanical.
**MS**—Marvel-Schebler Carburetor Div.
**MV**—Mixing valve.
**N**—No or none.
**Ng**—Natural gas.
**NgG**—Combination gas and gasoline.
**Op**—Opposed.
**OZ**—Own and Zenith.
**PBR**—Pedal, belt, pulley, or recoil.
**Pe**—Pedal.
**Pl**—Pulley.
**Pn**—Pneumatic.
**Pu**—Pumps.
**R**—Rope.
**Rc**—Recoil.
**Re**—Refrigerating equipment.
**Rr**—Recoil or rope.
**Str**—Stromberg Carburetor Div.
**Til**—Tillotsen Mfg. Co.
**Tr**—Tractors.
**Va**—Valve.
**Ver**—Verticle.
**Y**—Yes.
**ZE**—Zenith carburetor—Ensign mixing valve.
**ZEM**—Zenith carburetor—Ensign mixing valve, or Marvel-Schebler carburetor.
**Zen**—Zenith Carburetor Div.

***For Directory of the Manufacturers listed above, see page 190.***

## Shipments of Car, Truck and Bus Tires*

| | Original Equipment | Replacement | Export | Total | Production | Inventory |
|---|---|---|---|---|---|---|
| **Passenger Car Casings** | | | | | | |
| 1950 | 36,683,934 | 47,320,762 | 652,983 | 84,657,679 | 78,621,811 | 3,032,539 |
| 1949 | 28,128,583 | 36,429,572 | 508,565 | 65,076,720 | 65,140,287 | 5,903,731 |
| 1948 | 21,589,040 | 41,295,434 | 655,686 | 63,540,160 | 66,738,436 | 3,772,832 |
| 1947 | 19,644,143 | 52,857,228 | 1,608,082 | 74,109,453 | 77,795,299 | 5,444,071 |
| 1946 | 11,086,542 | 54,684,036 | 652,643 | 66,423,221 | 66,466,319 | 1,763,472 |
| **Truck and Bus Casings** | | | | | | |
| 1950 | 4,665,943 | 9,730,014 | 771,901 | 15,167,858 | 14,127,791 | 737,190 |
| 1949 | 3,455,781 | 7,026,115 | 958,420 | 11,440,316 | 11,228,440 | 1,734,456 |
| 1948 | 5,256,413 | 7,852,877 | 1,131,812 | 14,241,102 | 14,575,981 | 1,925,403 |
| 1947 | 5,411,521 | 10,013,994 | 1,648,396 | 17,073,911 | 17,754,837 | 1,505,221 |
| 1946 | 4,223,610 | 10,806,211 | 859,369 | 15,889,190 | 15,831,862 | 684,800 |
| **Total Automotive Casings** | | | | | | |
| 1950 | 41,349,877 | 57,050,776 | 1,424,884 | 99,825,537 | 92,749,602 | 3,769,729 |
| 1949 | 31,584,364 | 43,465,687 | 1,466,985 | 76,517,036 | 76,368,727 | 10,638,187 |
| 1948 | 26,845,453 | 49,148,311 | 1,787,498 | 77,781,262 | 81,314,417 | 10,698,235 |
| 1947 | 25,055,664 | 62,871,222 | 3,256,478 | 91,183,364 | 95,550,136 | 6,949,292 |
| 1946 | 15,310,152 | 65,490,247 | 1,512,012 | 82,312,411 | 82,298,181 | 2,448,272 |

* Rubber Manufacturers Association, Inc.

# 1951 U. S. OUTBOARD MOTORS

| MAKE AND MODEL | Power Head | Number of Cylinders | Cylinder Material | Bore and Stroke (In.) | Piston Displacement (Cu. In.) | Engine Type | Brake Hp. at R.P.M. O.B.C. Rating | Engine Weight (Lb.) Fully Equipped | Piston Rings—Number and Width | Propeller: Diameter (In.) | Propeller: Pitch | Propeller: Right or Left Hand Rotation | Propeller: Number of Blades | Starting Device | Fuel Tank Capacity (Pts.) | Gear: Ratio | Gear: Tooth Pitch | Gear: Material (S.A.E. No.) | Gearcase Bearing | Magneto Make | Carburetor: Make | Carburetor: Size (In.) | Carburetor: Starting Mixture Obtained by | Spark Plug—Make and Model | Bearings: Main | Bearings: Connecting Rod | Cooling System | Reverse | Lubrication—Pints Oil to 1 Gal. Gasoline |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Atlas-Royal 5D10A | Re-2 Port | 2 | ACS | 1 13/16 x 1 1/2 | 8.84 | AF | 5.0-4000 | 46 1/2 | 3 - 3/8 | 8 | 7 1/4 | L | 2 | RR | 6 1/2 | 14-25 | 12.00 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J8J | Pl | Pl | Ce | Yes | 1 1/2 |
| 12D10A | Re-2 Port | 2 | ACS | 2 5/8 x 2 1/4 | 19.94 | AF | 12.0-4000 | 64 1/2 | 3 - 3/8 | 9 | 10 | L | 3 | RR | 12 | 12-21 | 8.97 | 4615 | PA | Own | Til | 5/8 | C | Ch-J6J | Pl | Pl | Ce | Yes† | 1 |
| Brooklure 230-51-3S | Re-2 Port | 1 | ACS | 2 1/8 x 1 1/2 | 5.32 | S | 3.0-4000 | 28 | 2 - 3/8 | 6 1/2 | V | L | 2 | Cord | 4 | 13-22 | 13.55 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J8J | Pl | Pl | Rot | Yes | 1 1/2 |
| 230-51-3D | Re-2 Port | 1 | ACS | 2 1/8 x 1 1/2 | 5.32 | S | 3.0-4000 | 28 | 2 - 3/8 | 7 1/2 | V | L | 2 | RR | 4 | 13-22 | 13.55 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J6J | Pl | Pl | Rot | Yes | 1 1/2 |
| 230-51-5S | Re-2 Port | 2 | ACS | 1 13/16 x 1 1/2 | 8.84 | AF | 5.0-4000 | 45 | 3 - 3/8 | 8 | 7 1/4 | L | 2 | RR | 6 1/2 | 13-20 | 10.83 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J8J | Pl | Pl | Rot | Yes | 1 1/2 |
| 230-51-5D | Re-2 Port | 2 | ACS | 1 13/16 x 1 1/2 | 8.84 | AF | 5.0-4000 | 45 1/2 | 3 - 3/8 | 8 | 7 1/4 | L | 2 | RR | 6 1/2 | 14-25 | 12.00 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J6J | Pl | Pl | Ce | Yes | 1 1/2 |
| 230-51-12S | Re-2 Port | 2 | ACS | 2 5/8 x 2 1/4 | 19.94 | AF | 12.0-4000 | 66 | 3 - 3/8 | 9 1/4 | V | L | 2 | RR | 12 | 13-19 | 8.00 | 4615 | Pl | Own | Til | 5/8 | C | Ch-J8J | Pl | Pl | Rot | No | 1 |
| 230-51-12D | Re-2 Port | 2 | ACS | 2 5/8 x 2 1/4 | 19.94 | AF | 12.0-4000 | 64 1/2 | 3 - 3/8 | 9 | 10 | L | 3 | RR | 12 | 12-21 | 8.97 | 4615 | PA | Own | Til | 5/8 | C | Ch-J6J | Pl | Pl | Ce | Yes† | 1 |
| Buccaneer 3S10B | Re-2 Port | 1 | ACS | 2 1/8 x 1 1/2 | 5.32 | S | 3.0-4000 | 28 | 2 - 3/8 | 6 1/2 | V | L | 2 | Cord | 4 | 13-22 | 13.55 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J8J | Pl | Pl | Rot | Yes | 1 1/2 |
| 3D10B | Re-2 Port | 1 | ACS | 2 1/8 x 1 1/2 | 5.32 | S | 3.0-4000 | 28 | 2 - 3/8 | 7 1/2 | V | L | 2 | RR | 4 | 13-22 | 13.55 | 4515 | Pl | Own | Own | 1 1/16 | Pr | Ch-J6J | Pl | Pl | Rot | Yes | 1 1/2 |
| 5S10B | Re-2 Port | 2 | ACS | 1 13/16 x 1 1/2 | 8.84 | AF | 5.0-4000 | 45 | 3 - 3/8 | 8 | 7 1/4 | L | 2 | RR | 6 1/2 | 13-20 | 10.38 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J8J | Pl | Pl | Rot | Yes | 1 1/2 |
| 5D10B | Re-2 Port | 2 | ACS | 1 13/16 x 1 1/2 | 8.84 | AF | 5.0-4000 | 45 1/2 | 3 - 3/8 | 8 | 7 1/4 | L | 2 | RR | 6 1/2 | 14-25 | 12.00 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J6J | Pl | Pl | Ce | Yes | 1 1/2 |
| 12S10B | Re-2 Port | 2 | ACS | 2 5/8 x 2 1/4 | 19.94 | AF | 12.0-4000 | 66 | 3 - 3/8 | 9 1/4 | V | L | 2 | RR | 12 | 13-19 | 8.00 | 4615 | Pl | Own | Til | 5/8 | C | Ch-J8J | Pl | Pl | Rot | No | 1 |
| 12D10B | Re-2 Port | 2 | ACS | 2 5/8 x 2 1/4 | 19.94 | AF | 12.0-4000 | 64 1/2 | 3 - 3/8 | 9 | 10 | L | 3 | RR | 12 | 12-21 | 8.97 | 4615 | PA | Own | Til | 5/8 | C | Ch-J6J | Pl | Pl | Ce | Yes† | 1 |
| Champion 1L | RV | 1 | ACS | 2 1/4 x 1 3/4 | 5.84 | S | 4.2-4300 | 37 | 2 - 1/4 | 8 | 5 1/2 | R | 2 | Cord | 10 | 14-24 | 12.00 | NE8640 | Pl | BS | Til | 1 | C | Ch-7 | Pl | A | Ce | Yes | 3/4 |
| 2K | RV | 1 | ACS | 2 1/4 x 1 3/4 | 5.84 | S | 4.2-4300 | 39 | 2 - 1/4 | 8 | 5 1/2 | R | 2 | RR | 10 | 14-24 | 12.00 | NE8640 | Pl | BS | Til | 1 | C | Ch-7 | Pl | A | Ce | Yes | 3/4 |
| 2L-HD | RV | 1 | ACS | 2 1/4 x 1 3/4 | 5.84 | S | 4.2-4300 | 40 | 2 - 1/4 | 6 1/2 | 7 1/2 | L | 3 | RR | 10 | 14-24 | 12.00 | NE8640 | PA | BS | Til | 1 | C | Ch-7 | Pl | A | Ce | Yes | 3/4 |
| 4K | RV-Re | 2 | ACS | 2 1/4 x 1 3/4 | 12.41 | AF | 8.5-4200 | 49 1/2 | 2 - 1/4 | 8 1/2 | 8 1/2 | R | 3 | RR | 12 | 14-24 | 12.00 | NE8640 | PA | Phe | Til | 1 | C | Ch-7 | Pl | A | Ce | Yes | 3/4 | 2 |
| 4L-S.1X | RV-Re | 2 | ACS | 2 1/4 x 1 3/4 | 12.41 | AF | 8.5-4200 | 51 | 2 - 1/4 | 7 | 9 | L | 2 | RR | 12 | 14-24 | 12.00 | NE8640 | PA | Phe | Til | 1 | C | Ch-H16A | Pl | A | VP | Yes | 3/4 | |
| 4L-HD | RV-Re | 2 | ACS | 2 1/4 x 1 3/4 | 12.41 | AF | 8.5-4200 | 52 | 2 - 1/4 | 7 1/2 | 9 1/2 | L | 3 | RR | 12 | 14-24 | 12.00 | NE8640 | PA | Phe | Til | 1 | C | Ch-7 | Pl | A | VP | Yes | 3/4 | |
| Chris-Craft Challenger-J | Re-2 Port | 2 | MI | 2x1 1/2 | 9.42 | AF | 5.5-4000* | 46 | 2 - 1/4 | 8 3/4 | 8 | L | 2 | RR | 10 1/2 | 14-26 | 12.00 | 4615 | Pl | BS | Til | 7/8 | C | Ch-J8J | Pl | Pl | Rol | Yes | 1 1/2 |
| Commander-K | Re-2 Port | 2 | MI | 2 1/4 x 2 1/4 | 19.94 | AF | 10.0-4000* | 72 | 2 - 1/4 | 8 3/4 | 9 | L | 2 | RR | 16 | 13-17 | 12.00 | 4615 | A | BS | Til | 1 1/8 | C | Ch-J8J | A | A | Fvr | No | 3/4 |
| Corsair 5020 | Re-2 Port | 1 | ACS | 2 1/4 x 1 3/4 | 6.21 | S | 3.6-4000 | 39 | 2 - 1/4 | 7 1/2 | 6 | R | 2 | RR | 8 | 13-21 | 12.58 | 8640 | PA | Phe | Til | 3/4 | C | Ch-H10J | Pl | PA | Rot | No | 1 1/2 |
| 5021 | Re-2 Port | 1 | ACS | 2 1/4 x 1 3/4 | 6.21 | S | 4.0-4200 | 44 | 2 - 1/4 | 7 1/2 | 6 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Phe | Til | 3/4 | C | Ch-H10J | Pl | PA | Fvr | Yes† | 1 1/2 |
| 5027 | Re-2 Port | 2 | ACS | 1 13/16 x 1 1/2 | 7.48 | AF | 5.0-4200 | 47 | 2 - 1/4 | 7 1/2 | 7 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Phe | Til | 3/4 | C | Ch-H10J | Pl | PA | Fvr | Yes† | 1 1/2 |
| 5023 | Re-2 Port | 2 | ACS | 2 1/8 x 2 | 11.00 | AF | 7.5-4200 | 54 | 2 - 1/4 | 8 | 7 1/2 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Wico | Til | 3/4 | C | Ch-MT10J | PA | PA | Fvr | Yes† | 1 1/2 |
| 5028 | Re-2 Port | 2 | ACS | 2 1/4 x 2 | 14.19 | AF | 10.0-4200 | 61 | 2 - 1/4 | 8 1/4 | 10 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Wico | Til | 3/4 | C | Ch-MT10J | PA | PA | Fvr | Yes† | 1 1/2 |
| Elgin 5830 | Re-2 Port | 1 | ACS | 1 13/16 x 1 3/8 | 2.43 | S | 1.2-4000 | 19 1/2 | 2 - 3/8 | 6 1/2 | 5 | L | 2 | Cord | 3 1/2 | 12-21 | 14.00 | X1315 | Pl | Wico | Til | 1 1/16 | C | AS-A4120 | PA | Pl | Air | No | 3/4 |
| 5840 | Re-2 Port | 1 | ACS | 2 x 1 1/4 | 4.90 | S | 2.5-4000 | 29 1/2 | 2 - 3/8 | 7 1/2 | 4 1/2 | L | 2 | Cord | 7 1/2 | 14-21 | 12.00 | 8640 | Pl | Wico | Til | 1 1/16 | C | AS-A4120 | PA | Pl | VP | No | 3/4 |
| 5856 | Re-2 Port | 2 | ACS | 2 x 1 1/4 | 10.60 | AF | 5.0-4000 | 47 3/4 | 3 - 3/8 | 7 1/2 | 6 3/4 | L | 2 | RR | 8 | 14-21 | 12.00 | NE8640 | Pl | Wico | Til | 1 1/16 | C | AS-A4120 | PA | Pl | VP | Yes† | 1 1/2 |
| 5864 | Re-2 Port | 2 | ACS | 2 x 1 1/4 | 10.60 | AF | 6.0-4000 | 35 3/4 | 3 - 3/8 | 7 1/2 | 7 1/2 | L | 2 | Cord | 7 1/2 | 14-21 | 12.00 | NE8640 | Pl | Wico | Til | 1 1/16 | C | AS-A4120 | PA | A | VP | No | 3/4 |
| 5875 | Re-2 Port | 2 | ACS | 2 x 1 1/4 | 10.60 | AF | 7.5-4000 | 48 1/2 | 3 - 3/8 | 7 1/2 | 7 1/2 | R | 2 | RR | 11 | 14-21 | 12.00 | NE8640 | Pl | Wico | Til | 1 1/16 | C | AS-A4120 | A | PA | VP | Yes† | 1 1/2 |
| 5882 | Re-2 Port | 2 | ACS | 2 1/4 x 2 1/2 | 24.00 | AF | 16.0-4000* | 90 | 3 - 3/8 | 9 1/2 | 9 1/2 | R | 3 | RR | 46▲ | 14-21 | 9.00 | 4340 | A | FM | Til | 1 1/16 | C | AS-A4120 | A | PA | VP | Yes† | 3/4 |
| 5884 | Re-2 Port | 2 | ACS | 2 1/4 x 2 1/2 | 24.00 | AF | 16.0-4000 | 95 | 3 - 3/8 | 9 1/2 | 9 1/2 | R | 3 | RR | 46▲ | 14-21 | 12.00 | 4340 | A | FM | Til | 1 1/16 | C | AS-A4120 | A | PA | VP | Yes† | 3/4 |
| Evinrude Sportsman 4425 | | 1 | | 1 5/8 x 1 1/2 | 3.10 | S | 1.5-4000 | 30 | 2 - 3/8 | 6 1/2 | 5 1/2 | | 2 | RR | 4 1/2 | 12-23 | | | | Own | Til | | | Ch-J6-J | | | | Yes | |
| Sportwin 4423 | | 2 | | 1 5/8 x 1 1/2 | 6.22 | AF | 3.3-4000 | 39 | 3 - 3/8 | 6 1/2 | 4 3/4 | | 2 | RR | 6 1/2 | 13-18 | | | | Own | Own | | | Ch-J6-J | | | | Yes | |
| Fleetwin 4443 | | 2 | | 2 1/4 x 1 3/4 | 12.40 | AF | 7.5-4000 | 49 | 3 - 3/8 | 8 | 8 | | 3 | RR | 9 | 13-20 | | | | Own | Til | | | Ch-J6-J | | | | | |
| Fastwin 4441 | | 2 | | 2 1/8 x 2 1/4 | 19.94 | AF | 14.0-4000 | 58+ | 3 - 3/8 | 9 | 10 | | 3 | RR | 48▲ | 12-21 | | | | Own | Til | | | Ch-J6J | | | | | |
| Speeditwin 6039 | RV-2 Port | 2 | | 2 5/8 x 2 1/2 | 30.00 | O | 22.5-4000 | 115 | 3 - 3/8 | 10 1/2 | 10 1/2 | L | 3 | Cord | 20 | 15-21 | | | | Own | Own | | | Ch-5M-J | | | Ce | No | 3/4 |
| Big Twin 2001 | | 2 | | 2 5/8 x 2 1/2 | 35.70 | | 25.0-4000 | 85+ | 3 - 3/8 | 10 3/8 | 12 1/2 | | 3 | RR | 48▲ | 12-21 | | | | | | | | Ch-J6-J | | | | Yes | 1 1/2 |
| Firestone 10-A-71 | Re-2 Port | 1 | ACS | 2 1/4 x 1 3/4 | 6.21 | S | 3.6-4000 | 39 | 2 - 1/4 | 7 1/2 | 6 | R | 2 | RR | 8 | 13-21 | 12.58 | 8640 | PA | Phe | Til | 3/4 | C | Ch-H10J | Pl | PA | Rot | No | 1 1/2 |
| 10-A-72 | Re-2 Port | 1 | ACS | 2 1/4 x 1 3/4 | 6.21 | S | 4.0-4200 | 44 | 2 - 1/4 | 7 1/2 | 6 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Phe | Til | 3/4 | C | Ch-H10J | PA | PA | Fvr | Yes† | 1 1/2 |
| 10-A-73 | Re-2 Port | 2 | ACS | 1 13/16 x 1 1/2 | 7.48 | AF | 5.0-4200 | 47 | 2 - 1/4 | 7 1/2 | 7 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Phe | Til | 3/4 | C | Ch-H10J | Pl | PA | Fvr | Yes† | 1 1/2 |
| 10-A-74 | Re-2 Port | 2 | ACS | 2 x 1 1/4 | 11.00 | AF | 7.5-4200 | 54 | 2 - 1/4 | 8 | 7 1/2 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Wico | Til | 3/4 | C | Ch-HT10J | PA | PA | Fvr | Yes† | 1 1/2 |
| 10-A-75 | Re-2 Port | 2 | ACS | 2 1/8 x 2 | 14.19 | AF | 10.0-4200 | 61 | 2 - 1/4 | 8 1/4 | 10 | R | 2 | RR | 8 | | | | | | | | | | | | | | |
| Flambeau 174520 | 3 Port | 1 | CI | 1 13/16 x 1 7/8 | 4.62 | S | 2.5-4000 | 26 | 3 - 3/8 | 7 | 6 | L | 2 | Cord | 6 | 13-24 | 12.00 | 1315 | Pl | Ele | Own | 1 | Fl | Ch-J7J | Pl | Pl | Rot | No | 1 1/2 |
| 174050 | 3 Port | 2 | CI | 1 13/16 x 1 7/8 | 9.24 | AF | 5.0-4000 | 32 | 3 - 3/8 | 8 | 6 1/2 | L | 2 | Cord | 6 | 13-24 | 12.00 | 1315 | Pl | Ele | Own | 1 | Fl | Ch-J7J | Pl | Pl | Rot | No | 1 1/2 |
| Hiawatha 150MI-25-7959A | Re-2 Port | 1 | ACS | 2 1/4 x 1 1/2 | 5.32 | S | 3.0-4000 | 29 | 2 - 3/8 | 6 1/2 | V | L | 2 | RR | 4 | 13-22 | 13.55 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J8-J | Pl | Pl | Rot | Yes | 1 1/2 |
| 150MI-25-7973A | Re-2 Port | 2 | ACS | 1 13/16 x 1 1/2 | 8.84 | AF | 5.0-4000 | 46 1/2 | 3 - 3/8 | 8 | 7 1/4 | L | 2 | RR | 6 1/2 | 14-25 | 12.00 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J6-J | Pl | Pl | Ce | Yes | 1 1/2 |
| 150MI-25-7981A | Re-2 Port | 2 | ACS | 2 5/8 x 2 1/4 | 19.94 | AF | 12.0-4000 | 64 1/2 | 3 - 3/8 | 9 | 10 | L | 3 | RR | 12 | 12-21 | 8.97 | 4615 | PA | Own | Til | 5/8 | C | Ch-J6-J | PA | PA | Ce | Yes† | 1 1/2 |
| Johnson Sea Horse 2½ | RV-3 Port | 2 | ACS | 1 5/8 x 1 5/8 | 4.08 | AF | 2.5-4000 | 31 | 2 - 3/8 | 6 5/8 | 5 1/4 | R | 2 | RR | 4 1/8 | 13-20 | 13.33 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J6J | Pl | Pl | Rot | Yes | 1 1/2 |
| Sea Horse 6 | RV-3 Port | 2 | ACS | 1 13/16 x 1 3/8 | 8.84 | AF | 5.0-4000 | 44 | 3 - 3/8 | 8 | 7 1/4 | R | 2 | RR | 7 | 14-25 | 12.00 | 4615 | Pl | Own | Own | 1 1/16 | Pr | Ch-J6J | Pl | Pl | VV | Yes† | 1 1/2 |

# AMERICAN OUTBOARD MOTORS—*Concluded*

| MAKE AND MODEL | Power Head | Number of Cylinders | Cylinder Material | Bore and Stroke (In.) | Piston Displacement (Cu. In.) | Engine Type | Brake Hp. at R.P.M. O.B.C. Rating | Engine W-ight (L—) Fully Equipped | Piston Rings—Num.-er and Width | Propeller: Diameter (In.) | Propeller: Pitch | Propeller: Right or Left Hand Rotation | Propeller: Number of Blades | Starting Device | Fuel Tank Capacity (Pts.) | Gear: Ratio | Gear: Tooth Pitch | Gear: Material (S.A.E. No.) | Gearcase Bearing | Magneto Make | Carburetor: Make | Carburetor: Size (In.) | Carburetor: Starting Mixture Obtained by— | Spark Plug—Make and Model | Bearings: Main | Bearings: Connecting Rod | Cooling System | Reverse | Lubrication—Pints Oil to 1 Gal. Gasoline |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Johnson—Cont. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sea Horse 10 | Re-2 Port | 2 | ACS | 2⅝x1⅞ | 16.60 | AF | 10.0-4000 | 58+ | 3-⅛ | 9 | 8 | R | 3 | RR | 40▲ | 12-21 | 9.97 | 4615 | PA | Own | Own | ⅞ | Pr | Ch-J6J | A | A | VV | Yes† | ½ |
| Sea Horse 25 | Re-2 Port | 2 | ACS | 2⅞x2¾ | 35.70 | AF | 25.0-4000 | 85+ | 3-⅛ | 10¾ | 12½ | R | 3 | RR | 40▲ | 12-21 | 7.50 | 4615 | A | Own | Own | 1½ | C | Ch-J6J | A | A | VV | Yes† | ½ |
| Lawson | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S-351 | Pop-2 Port | 1 | CI | 2½x1⅞ | 6.65 | S | 3.0-3600° | 44 | 3-... | 7½ | 6 | .... | 2 | RR | 5 | 12-22 | ..... | ..... | PI | Wico | Til | ... | C | Ch-J8 | A | PI | Air | ... | None |
| T-651 | Pop-2 Port | 2 | CI | 2½x1⅞ | 13.30 | AF | 6.0-3600° | 57 | 3-... | 8 | 6½ | .... | 2 | RR | 10 | 13-21 | ..... | ..... | PI | Ele | Til | ... | C | Ch-J8 | PI | PI | Air | Yes | None |
| Martin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | Pop | 1 | CI | 1⅝x1½ | 2.86 | S | 2½-4300 | 31 | 2-⅛ | 6½ | 4½ | R | 2 | RR | 7 | 13-20 | (a) | 4150 | PI | Wico | Til | ½ | FI | Ch-J6J | PI | PI | Rol | Yes | ½ |
| 40 | Pop | 2 | CI | 1⅝x1½ | 5.76 | AF | 4.5-4300 | 38 | 3-⅛ | 7½ | 6 | R | 2 | RR | 7 | 13-20 | (a) | 4150 | PI | Wico | Til | ⅝ | FI | AL-AN7X | PI | PI | Rol | Yes | ⅝ |
| 60 | Pop | 2 | CI | 2x1⅝ | 11.00 | AF | 7.2-4000 | 44 | 3-⅛ | 8 | 8 | R | 2 | RR | 8 | 13-20 | (a) | 4150 | PI | Wico | Til | ⅝ | FI | AL-AN7X | PI | PI | Rol | Yes | ⅝ |
| 100 | Pop | 2 | CI | 2⅜x1¾ | 13.15 | AF | 10.0-4800 | 57 | 3-⅛ | 8 | 9¼ | R | 2 | RR | 11 | 13-20 | (a) | 4150 | PA | Wico | Car | ... | C | Ch-J6J | A | A | Rol | Yes | ½ |
| Neptune | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A-1 | Re-2 Port | 1 | ACS | 1⅝x1½ | 2.87 | S | 1.7-4000 | 17 | 2-⅛ | 6 | 5 | L | 2 | Cord | 2 | 13-20 | 14.00 | Dab | PI | Phe | Til | ... | FI | Ch-J10 | PI | PI | Ce | No | ⅜ |
| A-2 | Re-2 Port | 1 | ACS | 2⅛x1½ | 5.01 | S | 3.3-4000 | 30 | 3-⅛ | 7½ | 6½ | R | 2 | Cord | 4 | 13-20 | 14.00 | 2345 | PI | Phe | Til | ... | FI | Ch-J10 | A | PI | Rot | Yes | ⅝ |
| AA-2 | Re-2 Port | 1 | ACS | 2⅛x1½ | 5.01 | S | 3.3-4000 | 33 | 3-⅛ | 7½ | 8½ | R | 2 | RR | 5½ | 13-20 | 14.00 | 2345 | PI | Wico | Til | ... | C | Ch-J10 | A | PI | Rot | Yes | ⅝ |
| AA-4 | Re-2 Port | 2 | ACS | 1⅝x1½ | 7.20 | AF | 5.0-4000 | 40 | 3-⅛ | 7½ | 8½ | R | 2 | RR | 8 | 13-20 | 14.00 | 2345 | PA | Wico | Til | ... | C | Ch-J10 | A | PI | Ce | No | ⅝ |
| AA-6 | Re-2 Port | 2 | ACS | 2⅛x1½ | 10.02 | AF | 7.0-4000 | 52 | 3-⅛ | 8 | 7 | R | 2 | RR | 8 | 14-21 | 12.00 | 2345 | PA | Wico | Til | ... | C | Ch-J10 | A | A | Ce | No | ⅝ |
| AA-10 | Re-2 Port | 2 | ACS | 2¼x2 | 15.90 | AF | 10.0-4000 | 62 | 3-⅛ | 9 | 9 | R | 3 | RR | 8 | 12-21 | 8.00 | 2345 | PA | Wico | Til | ... | C | Ch-J10 | A | A | Ce | No | ⅝ |
| Scott-Atwater | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-12 | Re-2 Port | 1 | ACS | 2⅛x1⅝ | 6.21 | S | 3.6-4000 | 43 | 2-⅛ | 7½ | 6 | R | 2 | RR | 8 | 13-21 | 12.56 | 8640 | PA | Wico | Til | ⅜ | C | Ch-H10J | PI | PA | Rot | No | ½ |
| 1-14 | Re-2 Port | 1 | ACS | 2⅛x1⅝ | 6.21 | S | 4.0-4200 | 48 | 2-⅛ | 7½ | 6 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Wico | Til | ⅜ | C | Ch-H10J | PA | PA | Fvr | Yes† | ½ |
| 1-16 | Re-2 Port | 2 | ACS | 1⅛x1⅝ | 7.48 | AF | 5.0-4200 | 49 | 2-⅛ | 7½ | 7 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Wico | Til | ⅜ | C | Ch-H10J | PI | PA | Fvr | Yes† | ½ |
| 1-20 | Re-2 Port | 2 | ACS | 2x1⅝ | 11.00 | AF | 7.5-4200 | 58 | 2-⅛ | 8 | 7½ | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Wico | Til | ⅜ | C | Ch-H10J | PA | PA | Fvr | Yes† | ½ |
| 1-25 | Re-2 Port | 2 | ACS | 2⅛x2 | 14.19 | AF | 10.0-4200 | 64 | 2-⅛ | 8½ | 10 | R | 2 | RR | 8 | 13-21 | 10.75 | 8640 | PA | Wico | Til | ⅜ | C | Ch-H10J | PA | PA | Fvr | Yes† | ½ |
| 1-30 | Re-2 Port | 2 | ACS | 2⅛x2⅛ | 19.85 | AF | 16.0-4200 | 68 | 3-⅛ | 9 | 9½ | R | 3 | RR | 48▲ | 17-23 | 10.00 | 8640 | A | Wico | Til | 1 | C | Ch-SMJ | A | A | Fvr | Yes† | ½ |
| Sea Bee | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 025-3567 | Re-2 Port | 1 | ACS | 2½x1½ | 5.32 | S | 3.0-4000 | 29 | 2-⅛ | 6½ | V | L | 2 | RR | 4 | 13-22 | 13.56 | 4615 | PI | Own | Own | ½ | Pr | Ch-J6-J | PI | PI | Rot | Yes | ½ |
| 025-3568 | Re-2 Port | 2 | ACS | 1⅛x1½ | 8.84 | AF | 5.0-4000 | 45 | 3-⅛ | 7½ | 7¼ | L | 2 | RR | 6½ | 13-20 | 10.38 | 4615 | PI | Own | Own | ½ | Pr | Ch-J6-J | PI | PI | Rot | Yes | ½ |
| 025-3569 | Re-2 Port | 2 | ACS | 1⅛x1½ | 8.84 | AF | 5.0-4000 | 46½ | 3-⅛ | 8 | 7¼ | L | 2 | RR | 6½ | 14-25 | 12.00 | 4615 | PI | Own | Own | ½ | Pr | Ch-J6-J | PI | PI | Ce | Yes | ½ |
| 025-3571 | Re-2 Port | 2 | ACS | 2⅝x2¼ | 19.94 | AF | 12.0-4000 | 66 | 3-⅛ | 9¼ | V | L | 2 | RR | 12 | 13-19 | 8.00 | 4615 | PA | Own | Til | ⅝ | C | Ch-J6-J | PI | PI | Rot | No | 1 |
| 025-3572 | Re-2 Port | 2 | ACS | 2⅝x2¼ | 19.94 | AF | 12.0-4000 | 64½ | 3-⅛ | 9 | 10 | L | 3 | RR | 12 | 12-21 | 8.97 | 4615 | PA | Own | Til | ⅝ | C | Ch-J6J | PI | PI | Ce | Yes† | 1 |
| Sea Flyer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 64-170 | Re-2 Port | 1 | ACS | 2½x1½ | 5.32 | S | 3.0-4000 | 29 | 2-⅛ | 6½ | V | L | 2 | RR | 4 | 13-22 | 13.56 | 4615 | PI | Own | Own | ½ | Pr | Ch-J6J | PI | PI | Rot | Yes | ½ |
| 64-180 | Re-2 Port | 2 | ACS | 1⅛x1½ | 8.84 | AF | 5.0-4000 | 46½ | 3-⅛ | 8 | 7¼ | L | 2 | RR | 6½ | 14-25 | 12.00 | 4615 | PI | Own | Own | ½ | Pr | Ch-J6J | PI | PI | Ce | Yes | ½ |
| 64-190 | Re-2 Port | 2 | ACS | 2⅝x2¼ | 19.94 | AF | 12.0-4000 | 64½ | 3-⅛ | 9 | 10 | L | 3 | RR | 12 | 12-21 | 8.97 | 4615 | PA | Own | Til | ⅝ | C | Ch-J6J | PI | PI | Ce | Yes† | 1 |
| Sea King | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15GG-9009 | Re-2 Port | 1 | ACS | 2½x1½ | 5.32 | S | 3.0-4000 | 28 | 2-⅛ | 6½ | V | L | 2 | Cord | 4 | 13-22 | 13.56 | 4615 | PI | Own | Own | ½ | Pr | Ch-J6-J | PI | PI | Rot | Yes | ½ |
| 15GG-9004 | Re-2 Port | 1 | ACS | 2½x1½ | 5.32 | S | 3.0-4000 | 29 | 2-⅛ | 6½ | V | L | 2 | RR | 4 | 13-22 | 13.56 | 4615 | PI | Own | Own | ½ | Pr | Ch-J6J | PI | PI | Rot | Yes | ½ |
| 15GG-8014 | Re-2 Port | 2 | ACS | 1⅛x1½ | 8.84 | AF | 5.0-4000 | 45 | 3-⅛ | 7½ | 7¼ | L | 2 | RR | 6½ | 13-20 | 10.38 | 4615 | PI | Own | Own | ½ | Pr | Ch-J6-J | PI | PI | Rot | Yes | ½ |
| 15GG-8015 | Re-2 Port | 2 | ACS | 1⅛x1½ | 8.84 | AF | 5.0-4000 | 46½ | 3-⅛ | 8 | 7¼ | L | 2 | RR | 6½ | 14-25 | 12.00 | 4615 | PI | Own | Own | ½ | Pr | Ch-J6J | PI | PI | Ce | Yes | ½ |
| 15GG-8017 | Re-2 Port | 2 | ACS | 2⅝x2¼ | 19.94 | AF | 12.0-4000 | 66 | 3-⅛ | 9¼ | V | L | 2 | RR | 12 | 13-19 | 8.00 | 4615 | PA | Own | Til | ⅝ | C | Ch-J6-J | PI | PI | Rot | No | 1 |
| 15GG-8018 | Re-2 Port | 2 | ACS | 2⅝x2¼ | 19.94 | AF | 12.0-4000 | 64½ | 3-⅛ | 9 | 10 | L | 3 | RR | 12 | 12-21 | 8.97 | 4615 | PA | Own | Til | ⅝ | C | Ch-J6J | PI | PI | Ce | Yes† | 1 |

**ABBREVIATIONS**

†—Includes neutral.
▲—Separate gas tank.
°—Advertised horsepower.
♦—Less gas tank which is separate from motor.
(a)—0.250 circular pitch.

**A**—Antifriction.
**ACS**—Aluminum with cast iron sleeves.
**AF**—Alternate firing.
**AL**—Electric Auto-Lite Co.
**AS**—All-State.
**BS**—Bendix-Scintilla Magneto Div.
**Ce**—Centrifugal.
**C**—Choke.
**Car**—Carter Carburetor Co.
**Ch**—Champion Spark Plug Co.
**CI**—Cast iron.
**Dab**—Die cast aluminum bronze.
**Ele**—Eiseman (Jack & Heints Precision Ind.).
**FI**—Flooding.
**FM**—Fairbanks Morse & Co.
**Fvr**—Flexible vane rotor.
**L**—Left.
**MI**—Mechanite iron.
**NCI**—Nickel cast iron.
**O**—Opposed.
**PA**—Plain and antifriction.
**Phe**—R. E. Phelon Co.
**PI**—Plain.
**Pop**—Poppet valve.
**Pr**—Primer.
**R**—Right.
**Re**—Reed valve.
**Rol**—Rollator rubber.
**Rot**—Rotary pump.
**RR**—Rewinding rope.
**RV**—Rotary valve.
**S**—Single.
**Til**—Tillotson Mfg. Co.
**V**—Various.
**VP**—Vane pump.
**VV**—Vari-Vol.
**Wico**—Wico Electric Co.

# Defense Contract Awards

## Billions of Dollars Worth of Orders Placed for Military Vehicles, Aircraft and Related Equipment

COMPILED here are defense prime contracts that have been awarded to companies since the middle of 1950 and up to February 15 for various types of automotive military equipment, including tanks, motorized gun carriages, trucks, warplanes, components and spare parts for them, maintenance equipment, etc. Subsequently many thousands of sub-contracts are being placed with suppliers for sub-assemblies, parts, materials, and production equipment.

These contracts are unclassified, having been listed by the U. S. Department of Commerce and U. S. Department of Defense under their policy for disseminating such information. In addition there are numerous other contracts that have not been announced due to military secrecy. Defense orders that will have been placed by July 1 for automotive military equipment are expected to total $14 billion—approximately $10 billion for aircraft and $4 billion for tanks, trucks, and other motorized vehicles.

Most of these contracts have been placed from the following Dept. of Defense offices—Ordnance Tank-Automotive Center, Detroit, Mich.; Air Materiel Command, Wright-Patterson Air Base, Dayton, Ohio; Aviation Supply Office, Philadelphia, Pa.; and the Dept. of Navy, Bureau of Aeronautics, Washington, D. C. They are presented here as listed by the Government with a description, quantity ordered, and dollar value. In some instances either the quantity or dollar value was omitted in the reports.

### —A—

**ACF Brill, Phila., Pa.**
Ambulance, bus—6—$107,043
Seal—15,135—$34,567
Misc. bearings—4,930—$41,810
Engine parts—12,051—$98,326
Seat—1,920—$36,682
Bus—$6,912,228
Bus—602—$6,847,610

**ACF Brill, Hall Scott, Berkeley, Calif.**
Marine engine parts—$43—$43,124
Bushings, chain drives, gaskets, etc.—10,075—$485,950

**Acme Foundry & Mch. Co., Fort Worth**
Pulley—2,130—$60,096
Engine pulley—7,397—$65,995

**AC Spark Plug, GMC, Flint, Mich.**
Spark plugs—$1,143,848
Cable assy.—15,000—$29,550
Filter—12,000—$30,276
Fuel pump—7,600—$41,097
Misc. gages—23,856—$71,093
Spark plugs—$4,251,260
Aircraft spark plugs—$50,732
Hous., cores—96,710—$128,802
Fuel head—26,000—$42,681
Cleaner, cover—10,500—$143,547
Cables, cores, glass—31,000—$32,056
Gages & switches—7,350—$42,363
Tach. shaft—9,048—$25,550
Spark plug tester—$25,560
Gun sights—$20,000,000
Bombing computers—$16,000,000

**Active Gear Co., Chicago**
Gear assys.—4,510—$48,824
Universal yoke—8,300
Counter shaft—5,713—$58,262
Counter shaft, transmission—1,225—$26,270
Shafts—10,000—$64,900
Gear—25,000—$242,900
Countershaft—$82,250
Bellcrank, steering—4,900—$27,370
Hand brake assy.—15,000—$33,300
Gear, mainshaft, collar, countershaft—19,492—$206,272
Clutch—15,000—$46,050
Gear, shaft—1,509—$30,180
Gear—3,671—$31,223
Gear—12,000—$119,400

**Adel Div., Gen. Metals Corp., Burbank**
Hydraulic shuttle valve—4,810—$35,068
Valve assemblies and spare parts—$45,702
Fuel valve assembly—$52,117
Fuel valve assembly—$69,520
Pumps—470—$36,489
Hydraulic shut-off valve—255—$30,143

**Aero-Coupling Corp., Burbank, Calif.**
Hose assy.—3,604—$26,599

**Aerocrafts, Haile Fly. Serv., Austin, Tex.**
Shoulder harness—$36,504

**Aero Instrument Div., Cleveland**
Airspeed pitot static tube—$33,.65

**Aerol Co., Inc., Burbank, Calif.**
Tail wheel—2,504—$76,121

**Aeronautical Machy. Corp., Chicago**
Universal jack—73—$54,239

**Aeronca Aircraft Corp., Middletown, O.**
Maintenance stand—$595,121
Stand assy.—$692,604

**Aeroproducts Div., G.M.C., Dayton, O.**
Actuator assy.—$61,508

**Aeroquip Corp., Jackson, Mich.**
Coupling—2,375—$28,723
Aircraft hardware—$46,800
Hydraulic fittings for aircraft—$68,314

**Aero Supply Mfg. Co., Corry, Pa.**
Aircraft bolts—$37,523
Valve selector—255—$158,024
Valves, strainers & filters—158,520—$42,984
Misc. spare parts—$27,444

**Aerotec Corp., Greenwich, Conn.**
Fuel indicator—510—$83,491

**Aetna Ball & Roller Brg. Co., Chicago**
Bearings—14,641—$48,315

**Ahlberg Bearings Co., Chicago**
Ball bearings—$43,817
Ball bearings—$82,134

**Ainsworth Mfg. Co., Detroit**
Windshield weatherstrip—10,000—$25,590
Windshield frame—19,290
Windshields, assy.—3,800—$68,145
Windshield frame—8,750—$119,752
Windshield frame—8,750—$119,752

**Air Associates, Inc., Teterboro, N. J.**
Aircraft hardware—$120,240
Aircraft hardware—$57,630
Actuator gear case—147—$60,779

**Airborne Acc. Corp., Hillside, N. J.**
Actuators—177—$41,541

**Aircooled Motors, Inc., Syracuse, N. Y.**
Spare parts for engines—$31,400

**Aircraft Hdwe. Mfg. Co., Bronx, N. Y.**
Aircraft hardware—$33,910

**Air Flo Compressor Co., Akron, Ohio**
Compressors—$39,900

**Airesearch Mfg. Co., Los Angeles**
Oil cooler assy.—110—$36,954
Valve—145—$25,694
Refrigeration turbines—$30,000
Turbine assembly—$95,350
Turbines—$116,700
Heaters—$28,412
Actuator oil cooler—550—$65,945
Actuator—160—$30,115
Oil cooler assy.—122—$90,663
Regulator—$73,990
Switch assemblies & thermostat—$48,097
Spare parts—$42,548
Spare parts—$81,300
Cooler—95—$163,620
Air cooler for aircraft—55—$31,801
Valve for aircraft—165—$197,388

**Airpath Instrument Co., St. Louis, Mo.**
Compass—$29,708

**Alar Product, Inc., Cleveland**
Oxygen regulator—$70,950

**Alexander-Tagg Inds., Hatboro, Pa.**
Muffler—9,000—$102,600

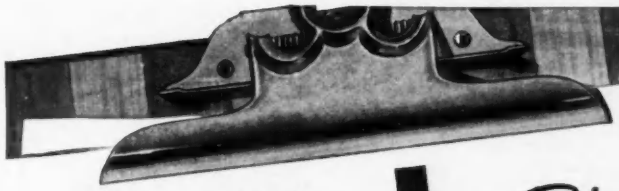
**Algonac Mfg. Co., Algonac, Mich.**
Cab closures—100—$31,605
Cab closures—941—$306,489
Cab closure—100—$51,702

**Allen Ind. Prod., Battle Creek, Mich.**
Winterization kits—$260,779

**Allied Aircraft Co., N. Hollywood, Cal.**
Magnetos—$172,468

**Allis-Chalmers Mfg. Co., Milwaukee**
Lock, block plug, rod, etc.—5,470—$53,515
Retainers—23,074—$54,886
Fittings—5,028—$35,320
Shields, skirts, fenders—1,620—$52,810
Lines, pumps, rings—40,795—$204,688
Metal strip, studs—30,585—$467,661
Clamps, shims, spacers—3,770—$41,863
Repair parts for electric meters—12,600—$59,587
Electrical repair parts—9,191—$63,328
Motors—16—$25,000
Pump, control & turbine repair parts—1,776—$80,142
Misc. parts—15,714—$78,502
Pump, pedal, hook, pre-cleaner—2,795—$91,549
Tank, block, bracket channel, clamp, cover—985—$39,204
Misc. covers, bushings—132,158—$110,568
Overrunning clutch—435—$58,009
Cap track—15,240—$748,498

(*Turn to page* 182, *please*)



INLAND **DATA for STEEL USERS**

**INLAND STEEL CO.**

38 S. Dearborn Street, Chicago 3, Illinois

# Packaging your Steel sheets and strip

One way the steel user may be able to reduce the cost of steel delivered to his fabricating equipment, is by specifying the correct type of package the mill should provide. In the final analysis, his handling equipment, storage facilities, method of transportation from mill to plant and end-use of the steel will all have a bearing on the type and weight of package he needs. The following chart illustrates the most generally used types of packages for steel sheets and strip. We are always glad to recommend to the user, the most suitable type of package for the steels we ship.

| Type of handling equipment in steel user's plant | The most generally used types of steel mill packages | |
|---|---|---|
| | for cut lengths | for coils |
| Overhead crane with SHEET LIFTER or COIL HOOK | sheets on lengthwise skids | cylinder method of loading coils; coil on skid, core horizontal |
| Overhead crane with CHAIN OR CABLE SLINGS | sheets on crosswise skids; sheets on lengthwise skids | cylinder method of loading coils; coil on skid, core horizontal |
| Overhead crane with ELECTRO-MAGNET | any type package as long as material is securely banded or tied | flat method of loading coils; coil on platform, core vertical |
| FORK TRUCK | sheets on crosswise skids | Ram truck or Fork truck used as ram: cylinder method of loading; coil on skid, core horizontal. Fork truck: coil on platform, core vertical |

# Defense Contracts

(*Continued from page 180*)

Shim, washer, pin, gasket—26,165—$113,708
Nut, plug, screw—80,240—$47,595
Plate, elbow, screen—11,358—$487,889
Shaft sleeve—14,863—$131,548
Fenders, housing, clip, support, etc.—2,270—$40,480
Gasket, lock, hose—127,294—$1,378,191
Wheel track washers—22,480—$722,760
Cables, pipe, adapter, etc.—17,140—$809,311
Lines, pumps, rings—40,795—$204,668
Fenders—1,950—$48,392
Rods—14,477—$32,087
Rod, gears, yokes—13,235—$37,860
Rods, gears, yokes—$37,860
Pipes—1,815—$41,632
Roller cover—3,948—$399,194
Repair kit—29,168—$95,596
Vehicle, spare parts—$180,770
Idler tank—90—$57,833
Ex. fork—$55,553
Pulley gears—1,400—$25,863
Raffle support—1,330—$69,807
Strip, studs, etc.—30,585—$467,661
Drums, boots, rings, gages—37,024—$308,989
Tactical vehicles—$188,000,000

**Aluminum Co. of Amer., Washington**
Aluminum alloy sheets—100,000 lb—$37,085
Aluminum alloy sheets—176,508 lb—$66,347
Aluminum alloy sheets—233,000 lb—$77,989
Aluminum fan blade castings—$54,355

**American Auto Parts Co., Kansas City, Mo.**
Hood assy.—1,262—$35,272
Transmissions—269—$119,436
Housing, rear axle—400—$59,600

**American Bosch Corp., Springfield, Mass.**
Motor, magnet—4,515—$31,379
Windshield wiper assy.—27,000 ea.—$142,290
Ignition coil—45,000—$62,100
Coil—14,638—$59,525
Vibrators—1,057—$30,455

**American Car & Foundry, New York**
Combat vehicles, motor gun carriages—$135,000,000

**American-Coleman Co., Omaha, Nebr.**
Hub & drum assys.—$56,997

**American Generator Co., Chicago**
Armature, generator assy.—6,000—$42,780

**American Loco. Co., Schenectady, N. Y.**
Repair parts for Diesel engines—3,161—$75,388

**Am. Marsh Pumps, Battle Creek, Mich.**
Repair kits & pump assys.—$37,215

**Am. Measuring Inst. Co., New York**
Shock absorber—21,600—$53,654

**American Steel Co., Pittsburgh, Pa.**
Cotter pin—5,128,000—$31,704
Misc. pins—3,500—$53,073
Pins—760,000—$53,073

**Amgears Inc., Chicago**
Machine tools—$328,000

**Anderson Co., Gary, Ind.**
Motor, windshields, etc.—15,000—$25,800
Kits—154,252—$249,553
Windshield wiper blade—550,000—$60,720

**O. L. Anderson Co., Inc., Detroit**
Fuel tanks—121—$40,693

**W. H. Anderson Co., Inc., Detroit**
Snatch blocks—9,155—$80,564

**W. A. Apple Textile, Dayton, O.**
Harness assy.—$235,470

**Arlington, Inc., St. Paul, Minn.**
Paint conditioning machine—200—$47,000

**Armbuster Mfg. Co., Springfield, Ill.**
Covers—4,050—$67,230

**Armstrong Rubber Co., W. Haven, Conn.**
Rubber (camelback)—373,100 lb—$73,873
Camelback—247,500 lb—$54,771
Tires & tubes—153,384—$3,581,241

**Arc Equip. Co., Bryan, Ohio**
Valve assembly—$54,800

**Auburn Spark Plug Co., Auburn, N. Y.**
Spring and spark plug assembly—$62,017
Aircraft engine ignition spare parts—$38,771
Spark plug—31,200—$36,816

**Austin Metal Prod., Inc., Detroit**
Windshield frame—35,000—$477,750
Windshield assy.—20,000—$278,000
Windshield assy.—5,000—$173,000
Frame—3,000—$48,600

**Automotive Mfg. Co., Chicago**
Shaft, pivot (steering) bellcrank—6,200—$46,759
Counter shaft intermediate—1,720

**Arvin Ind. Inc., Columbus, Ind.**
Muffler—40,000—$69,600

**The Autocar Co., Ardmore, Pa.**
Levers, pins, gears, screws, bearings—18,200—$25,933
Screw, cover—20,600—$350,808
Bracket retainer—5,307—$45,768

**Auto Lite Battery Corp., Niagara Falls**
Facil. to make batt.—$740,500

**Automotive Mfg. Co., Inc., Chicago**
Repair kit—27,000—$42,660
Bell crank—15,000—$40,200

**Automotive Specialty Corp., Brooklyn**
Ignition coil assy.—75,000—$105,750

**W. G. Avery Body Co., Jackson, Miss.**
Rack assy.—9,300—$77,217
Rack assy.—4,200—$31,486
Rack assy.—4,200—$31,486

## —B—

**B. G. Corp., New York, N. Y.**
Spark plug service kit—1,285—$49,633

**Barber Colman Co., Rockford, Ill.**
Box element assemblies & actuator assemblies—$61,385
Valve assy.—$27,375
Valve assy.—$27,375

**Barden Corp., Danbury, Conn.**
Ball bearings—$389,235
Ball bearings—$72,400
Ball bearings—$89,297

**Barrett Equipment Co., St. Louis, Mo.**
Brake lining machine—563—$78,622
Brake lining machine—563—$78,622

**Bay City Shovels, Bay City, Mich.**
Cranes—20—$420,000

**Bay Engine Parts Co., San Francisco**
Oil pump line, plug, etc.—20,663—$37,156
Gasket sets—7,912—$48,522
Washer—19,632—$108,147
Valves guide section—29,686—$196,312

**Bearings Co. of America, Lancaster, Pa.**
Bearings—47,664—$88,381
Bearings—59,906—$118,389
Bearings—27,685—$37,097

**Beech Aircraft Corp., Wichita, Kan.**
Fuel tanks—$91,096
Misc. assemblies—$200,000
Kits of material—$75,000
Navigator's dome—$142,730
Navigator's dome—$39,688
Generator sets—104—$941,886
Tip tanks—$710,000
Fuel tanks, jettisonable—$3,233,000
Tank assys.—$750,000

**Beeline Co., Davenport, Iowa**
Machines—20—$38,900

**Beiderman Motors Corp., Cincinnati**
Transfer case, rear axle differential—65—$42,469
Mounting plate—490—$31,683
Steering gear—22,990—$46,844
Shaft, joint—1,175—$52,607
Spare parts—$582,785
Maintenance parts for trucktractors—$49,810
Transfer axle—$43,821
Engine—600—$914,250
Lever stop dowel—$39,413
Maintenance parts for engines—$125,000
Gears, exhaust guide, flywheel pump, wire assy., etc.—6,100—$80,492
Engines—1,005—$2,843,918
Engines—600—$914,250
Distributors—4,000—$39,413
Rotor, elbow, bracket—13,240—$46,956
Shaft, tube—3,575—$54,831
Transmission assemblies & bearings—$53,652

**Bell Aircraft Corp., Niagara Falls**
Misc. assemblies—$75,000
Assemblies—$150,400
Assemblies—$275,000
Spare parts, aircraft—$62,060
Spare parts—$250,000
Misc. assys., subassys., etc., for aircraft transmission systems—$75,000
Reclamation of aircraft—$280,000

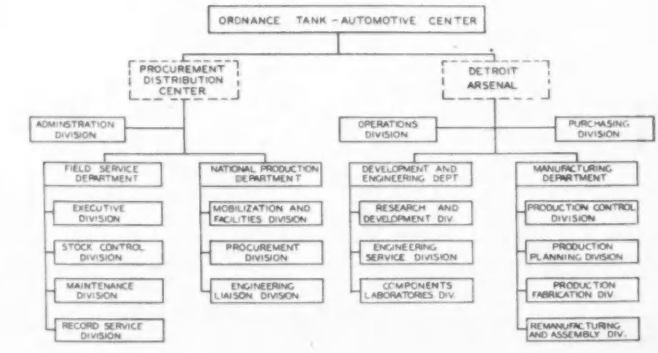
**Bendix Avia. Corp., Friez Inst. Div. Towson, Md.**
Wind measuring sets—100—$75,052

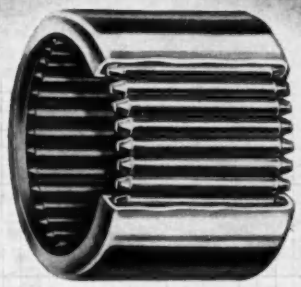
**Bendix Aviation Corp., Baltimore, Md.**
Components—$922,254
Parts for radio set—$10,592,614

**Bendix Avia. Corp., Friez Inst. Div., Baltimore**
Repair parts for communication equipment—3,205—$26,485

(*Turn to page 298, please*)

*This chart shows the organizational setups of the Detroit Arsenal and the Procurement and Distribution Center at the Army Ordnance Tank-Automotive Center, Detroit. At the Arsenal tanks and other combat vehicles, trucks, buses and trailers are developed, built and tested. The Procurement and Distribution Center buys all automotive equipment and spare parts in quantities for the Army, Navy and Air Force.*





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## TORRINGTON *NEEDLE* BEARINGS

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# Men in the News

*Current Personnel Appointments and Changes at Plants of Automotive Manufacturers and Their Suppliers*

Chrysler Corp. of Canada, Ltd.—The board of directors announced that **E. C. Row** has been elected president and general manager.

Curtiss-Wright Corp.—**Maj. Gen. Edward M. Powers**, USAF, retired, was elected a director.

The Glenn L. Martin Co.—**William B. Bergen** has been elected vice president-chief engineer. **Robert G. Bounds** has been appointed divisional superintendent. **Glenn A. Evans**, chief of tool engineering of the company's Baltimore office, now heads the Tool Manufacturing Dept. in addition.

Chrysler Corp.—**Robert W. Conder**, formerly director of labor relations of the company, has been appointed to the newly-created post of director of industrial relations. **John D. Leary** has been appointed director of labor relations.

Chrysler Corp., Dodge Division—Promotion of **E. M. Braden** to the position of sales supervisor was announced. **Glen T. Johnson** has been made general manager of the Dodge San Leandro, Calif., plant. He succeeds **John P. Mansfield**, who recently was made vice president of Plymouth Motor Corp.

Chrysler Corp., New Orleans Tank Plant—**R. S. Bright** has been named manager.

General Motors Corp., Chevrolet Motor Div.—With the announcement of the separation of defense from civilian operations, **B. D. Marshall** has been made manager of defense manufacturing plants; **A. R. Roskilly** will be the new plant manager of Aviation Plant No. 1, at Tonawanda, N. Y.; **Edward Ravas** has been named plant manager at Muncie, Ind.

Mack Manufacturing Corp.—**D. R. Collin** has been appointed vice president in charge of labor relations and personnel for the company and the other subsidiary companies of Mack Trucks, Inc., operating in the continental limits of the U. S. **Henry Rowold**, a vice president of Mack Motor Truck Corp., has been appointed manager of Mack's Distributor Sales Div.

General Motors Corp., GMC Truck & Coach Div.—**Philip J. Monaghan** has been appointed to the newly-created position of manufacturing manager.

Lord Manufacturing Co.—**A. G. Postlethwait**, for the past 15 years president of the National Bank and Trust Co., Erie, Pa., has been elected vice president.

The International Nickel Co. of Canada, Ltd.—**Dr. John F. Thompson**, president, was elected to the additional office of chairman of the board of directors, succeeding the late Robert C. Stanley. **Dr. Paul D. Merica**, executive vice-president and a director, was elected a member of both the executive committee and the advisory committee.

Ryan Aeronautical Co.—**H. J. Van Der Linde** has been advanced to the position of production manager. **R. L. Clark**, former assistant director of the customer service department, has been appointed assistant production manager under Mr. Van Der Linde, and **J. C. Zippwald** was advanced from field service representative to Mr. Clark's previous position in customer service.

Republic Aviation Corp. — **Herman Doege**, formerly factory superintendent, has been appointed director of the Republic Aviation Corp.-General Motors Assistance program. Other appointments announced were: **Richard Smith**, coordinator of engineering; **C. J. Kucyn**, coordinator of production control; **Irving Lewis**, coordinator of inspection; **Phil Dorrier**, coordinator of tooling.

Utica Drop Forge & Tool Co.—Announcement has been made of the appointment of two new vice presidents, **Charles E. Wilderman** and **Daniel E. Waterbury**.

Clinton Machine Co., Warner Div.—**V. R. Peiffer** has been appointed director of production. **Carl L. Kalitta** has been appointed chief design engineer.

The Thomas Steel Co.—The board of directors of the company elected **Marvin J. Bair** vice president in charge of sales.

Sun Oil Co.—**Frederick B. Hufnagel, Jr.** has been appointed assistant to R. H. Anders, director of purchases of the company.

National Motor Bearing Co., Inc.—**Donald Patterson**, formerly production control manager has been promoted to the post of factory manager. He succeeds **Col. B. W. Holmes** who has been recalled to active service in the United States Air Force.

The Bullard Co.—**H. Edward Neale** has been appointed as assistant sales manager.

Fairbanks, Morse & Co.—**Orren S. Leslie** became manager of the Beloit, Wisc., Works of Fairbanks, Morse & Co.

Consolidated Vultee Aircraft Corp., San Diego—**Howard G. Golem** has been appointed director of procurement for the corporation. **Kemper Jacks** was named assistant manager, San Diego Div.

Lockheed Aircraft Corp;—**J. R. Janssen** has been named director of financial operations Marietta, Georgia, Div. **H. R. Campbell** has been appointed director of financial operations, **Jack T. Gray**, manufacturing manager; **R. W. Middlewood**, chief engineer, and **S. H. Neffeler** works manager.

Airquipment Co.—**C. A. Barker, Jr.**, has been named president and **Ralph Osborn** vice-president and general manager. **Jack C. Newburn**, former vice-president, has resigned. **Roy A. Mackenzie** has been appointed vice-president of manufacturing and a director.

Pacific Airmotive Corp.—**Thomas O. McCraney** has been named general counsel and assistant secretary of the firm.

## Necrology

**Fred M. Zeder**, 64, vice chairman of the board, the Chrysler Corp., died Feb. 24 in Miami, Fla.

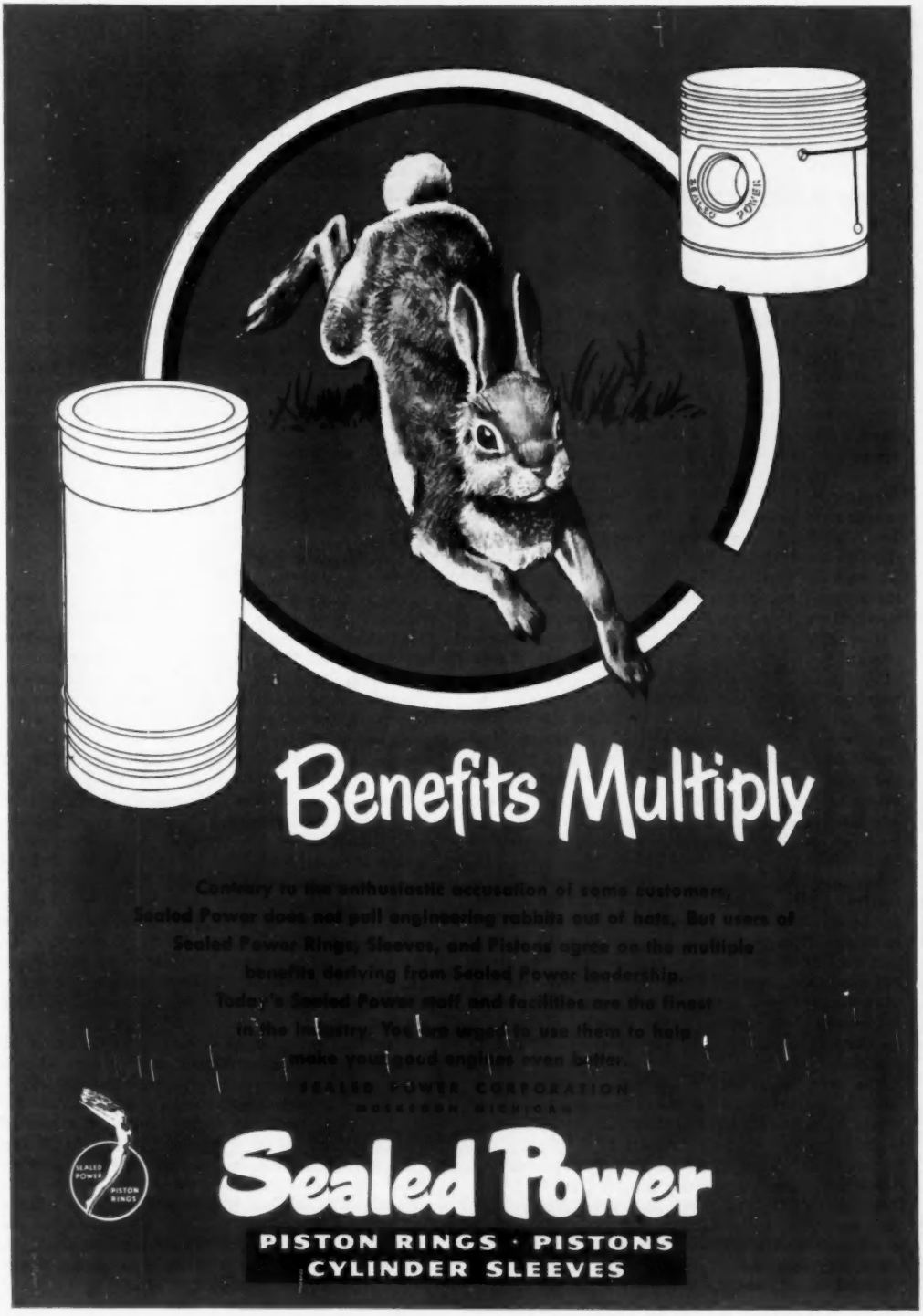
**Charles C. Cross**, 71, automotive engineer, and a founder of the old Saxon Motor Car Co., died Feb. 25 in Detroit.

**J. R. Heller**, 50, one of the founders of the Elco Lubricant Corp. of Cleveland, O. died Feb. 8 in Tucson, Ariz.

**John A. Sherry**, 52, Perfect Circle Corp. regional sales manager with headquarters in Indianapolis, died Feb. 20.

**Russell L. Peck**, refractories engineer for Norton Co., was killed in an automobile accident in Tallulah, La. on Jan. 23.

**Albert C. Barley**, 74, automotive pioneer, died Feb. 13 in Detroit.


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Contrary to the enthusiastic accusation of some customers, Sealed Power does not pull engineering rabbits out of hats. But users of Sealed Power Rings, Sleeves, and Pistons agree on the multiple benefits deriving from Sealed Power leadership. Today's Sealed Power staff and facilities are the finest in the industry. You're urged to use them to help make your good engines even better.
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# AIRBRIEFS

By ROBERT McLARREN

## This Russian Game

The U. S. aviation press is currently playing an interesting game. To those with some professional knowledge of things aeronautical, the game is amusing, but to the laymen it is an insidious and dangerous sport. The game consists simply of outdoing the opposition in crediting Russian aircraft with phenomenal performance, miraculous production and vast numbers in service. It is essential that all of this information be credited to "private sources behind the Iron Curtain," the wording of this cryptic reference depending wholly on the cleverness of the author. Throughout the article there must run a tone strongly intimating that previously published material was spurious and that here, at least, is the *real* story.

The game began a year ago and is generally credited to two imaginative Englishmen whom investigation reveals are in their early twenties. One of the pair is an artist with admirable skill in providing the very last rivet on his drawings, the other a facile penman with a dextrous acquaintance with aeronautical terminology. Together they have managed to retail the same collection of apocrypha to every aviation magazine in America and a wide variety of aviation journals abroad (England, France, South Africa, Australia and Canada) plus side trips into such unrclated publications as *Ordnance* and others.

Rising to the challenge, U. S. authors hurried into the fray with gratuitous blossoming of all the figures, the whole compounded by such factual commentators as General Hoyt S. Vandenberg, who has said, simply, that the Russian jet fighters are good ones. The battle has now neared the sonic barrier so closely that the editors are forced into an abandonment of round figures and quote such data as a top speed of 747 mph for the MIG 15 fighter, etc., not 740 or 750, mind you, but 747!

The harm in all this, in our opinion, is that it is inhaled in great gulps by the uninformed American citizen to his inevitable demoralization. He is forced to the conclusion that not only are U. S. aircraft designers incapable of creating a fighter as fast as the Russians' but that our industry cannot possibly turn them out as fast, our pilots maneuver them as well, their guns shoot as far or handle as heavy a shell, etc., to ultimate frustration. Certainly this consequence is the very paralysis of confidence that comprises the principal Russian weapon in the current mess.

Simultaneously, however, we are constantly harangued "Don't underestimate the Russians" and are cajoled by self-styled "sober analysis" and a "look at the facts." All of this conflict is clearly symptomatic of the vacuum that exists on the Russian aviation news front and that demands its filling. Personally we are going to wait until the inevitable day that the U. S. Air Force gets its hands on a decently-intact MIG-15 and delivers it to Wright Field. Until then we'll stick with the F-86 Sabre.

## Brother's Keeper

For forty years the U. S. airframe and engine manufacturer have marched shoulder-to-shoulder up the road of aeronautical progress. First one has led, then the other, but throughout they have complemented each other like a team of hand-to-hand gymnasts. An examination of the piston-engine record demonstrates this truth, but the story of the partnership since V-J Day bears little searching. Has the U. S. aircraft engine manufacturer failed his airframe-brother in the gas turbine field? There is evidence that this is so.

Today we are witnessing a girding of our aircraft production capacity through enlistment of the automobile industry and expansion of the basic aircraft engine industry yet we find that the engines available from America's two oldest and most esteemed aircraft engine builders are imported from England. Pratt & Whitney, whose design and production record is a magnificent chapter in U. S. aviation history, today offers our jet fighter builders only a Rolls-Royce Tay; Wright Aeronautical, descended from the day of Kitty Hawk, offers only the Armstrong-Siddeley Sapphire.

There are explanations a-plenty for this situation, but their volume alone attests the measure of this defection. The United States government, in lavishness, has charted the course and greased the skids for gas turbine progress by these foundation stones of U. S. aviation engine technology. The NACA has expended tens of millions of dollars on gas turbine research in support of progress of these two companies, as well as other manufacturers. The Air Force has spent to the point of glutting the market for gas turbine research in universities, private research organizations and directly with these companies to the

(*Turn to page* 218, *please*)

# *Automatic* ENGINE CONTROLS

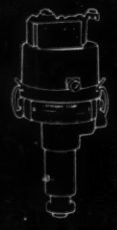


CRANKING CONTROLS



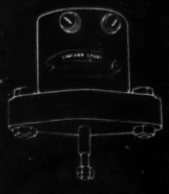
ALARM RELAYS

You can get a SYNCHRO-START Control to meet any Engine Control requirement, for Gas, Gasoline or Diesel engines, no matter what the power application may be, either for FULL AUTOMATIC, SEMI-AUTOMATIC, MANUAL, PROTECTION ONLY, or a COMBINATION of any or all of the control features to meet exactly what you want, or that is needed to fulfill a specific demand.



OVERSPEED GOVERNORS

Nineteen years of manufacturing engine controls, ranging from a simple switch to multiple-engine control panels, have given SYNCHRO-START the "know-how" to make thoroughly DEPENDABLE CONTROLS to meet your needs correctly.



SOLENOIDS

When you order your engines—SPECIFY SYNCHRO-START Controls. Your manufacturer, dealer, engineering firm, or architect can furnish you with the correct control. Or write us direct for our nearest representative.





**SYNCHRO-START PRODUCTS, INC.**

8151 N. RIDGEWAY AVE. • SKOKIE, ILLINOIS

# Publications AVAILABLE

**New Industrial Literature listed in this department is obtainable by subscribers through the Editorial Department of AUTOMOTIVE INDUSTRIES. In making requests please be sure to give the NUMBER of the item concerning the publication desired, your name and address, company connection and title.**

## A-63 Synchronous Generators

General Electric Co.—A new four-page, two-color bulletin on Tri-Clad high-speed synchronous generators is now available. Designated as GEA-5470, the publication covers generators for standly, portable, and prime-source power in ratings from 1.875 to 50 kva with frequencies of 60 and 400 cycles.

## A-64 Index

The Torrington Co.—Recently made available is a complete index of articles appearing from Jan., 1941, through Dec., 1950, in the firm's publication, "The Bearing Engineer."

## A-65 Colloidal Graphite

The Acheson Colloids Corp.—Just released is bulletin 427 entitled "Colloidal Graphite as a Parting Compound." The publication describes how colloidal graphite dispersions are used in the metalworking, glass and rubber industries.

## A-66 Arc Welding

Hobart Brothers Co.—Now available is Volume Seven, No. Three of the Hobart Arc Welding News, a 24-page booklet, which contains interesting photographs and articles on welding from all over the country.

## A-67 Variable Speed Drives

Reeves Pulley Co. — An attractive new 12-page bulletin, G-509, which describes the basic operating principle of the firm's variable speed drives and contains representative rating tables and dimension drawings, is now being offered.

## A-68 Gear Hardening Machine

Westinghouse Electric Corp. — Detailed operational information about the new radio-frequency gear-hardening machine, the Inductall, is presented in a new booklet, B-5259, that is now available.

## A-69 Copying Machines

Charles Bruning Co., Inc. — A new eight-page, three-color booklet, A-1078, describes the firms new BW Copyflex, copying machine.

## A-70 Surface Coatings

Bakelite Co.—Protective and decorative coatings for all types of surfaces are described in a new 28-page booklet, entitled "The Story of Surface Coatings Based on Vinylite Resins," offered by the firm.

## A-71 Adjustable Loading Docks

Rowe Methods, Inc.—Full information on adjustable loading docks is given in a new two-color illustrated folder just issued by the company.

## A-72 Portable Electric Drills

Mall Tool Co.—A new 36-page booklet, "More Holes in a Hurry," gives a working knowledge of portable electric drills, their care, and how and where to use them.

## A-73 Diesel Engines

Cummins Engine Co., Inc. — Data compiled by General Petroleum Corp. for one of their NHB-600 Cummins Diesel powered trucks operating between Los Angeles and Phoenix are published in a new four-page leaflet entitled "Over 300,000 Miles Without Overhaul."

(*Turn to page* 378, *please*)

**TIME SAVER COUPON**

*THIS TIME SAVER COUPON is for your convenience in obtaining, WITHOUT OBLIGATION, more information on any one or more of the publications described above OR New Production and Plant Equipment OR New Products items described on other pages.*

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| *Please send me:* **These FREE Publications** (Use letter and designating number of each item desired) | *Please send me more information on:* **New Production and Plant Equipment** (Use letter and designating number of each item desired) | *Please send me more information on:* **New Products** (Use letter and designating number of each item desired) |
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# VANADIUM

## FOR WELDABILITY

WRITE US FOR DATA ON THE SUPERIOR
WELDING PROPERTIES OF VANADIUM STEELS

**VANADIUM CORPORATION OF AMERICA**

420 LEXINGTON AVENUE, NEW YORK 17, N. Y. • PITTSBURGH • CHICAGO • DETROIT • CLEVELAND

MAKERS OF FERRO-ALLOYS




CHEMICALS AND METALS

# DIRECTORY of MANUFACTURERS

*Following are the company names and addresses of manufacturers whose products are listed in the tables of specifications of complete motor vehicles, tractors, aircraft, and all types of gasoline and Diesel engines appearing on pages 124 to 179 inclusive.*

## PASSENGER CARS

For details of their products see pages 125-136.

BUICK Motor Div., General Motors Corp., Flint 2, Mich.
CADILLAC Motor Car Div., General Motors Corp., Detroit 32, Mich.
CHEVROLET Motor Div., General Motors Corp., Detroit 2, Mich.
CHRYSLER Div., Chrysler Corp., Detroit 31, Mich.
CROSLEY Motors, Inc., Cincinnati 14, Ohio.
DE SOTO Div., Chrysler Corp., Detroit 31, Mich.
DODGE Div., Chrysler Corp., Detroit 31, Mich.
FORD Motor Co., Dearborn, Mich.
FRAZER, See Kaiser-Frazer Corp.
HUDSON Motor Car Co., Detroit 14, Mich.
KAISER-FRAZER Corp., Willow Run, Mich.
LINCOLN-MERCURY Div., Ford Motor Co., Detroit 32, Mich.
MERCURY, See Lincoln-Mercury Div., Ford Motor Co.
NASH Motors Div., Nash Kelvinator Corp., Detroit 32, Mich.
OLDSMOBILE Div., General Motors Corp., Lansing 21, Mich.
PACKARD Motor Car Co., Detroit 32, Mich.
PLYMOUTH Division, Chrysler Corp., Detroit 31, Mich.
PONTIAC Motor Div., General Motors Corp., Pontiac, Mich.
STUDEBAKER Corp., South Bend 27, Ind.
WILLYS-OVERLAND Motors, Inc., Toledo, Ohio.

## TRUCKS

For details of their products see pages 137-141.

The AMERICAN-COLEMAN Co., Omaha 2, Neb.
AUTOCAR Co., Ardmore, Penna.
AVAILABLE Truck Co., Chicago 47, Ill.
BIEDERMAN Motors Corp., Cincinnati 14, Ohio.
BROCKWAY Motor Co., Cortland, N. Y.
BROWN EQUIPMENT & Mfg. Co., New York 19, N. Y.
CHEVROLET Motor Div., General Motors Corp., Detroit 2, Mich.
The CORBITT CO., Henderson, N. C.
CROSLEY Motors, Inc., Cincinnati 25, Ohio.
DIAMOND T Motor Car Co., Chicago 23, Ill.
DODGE Div., Chrysler Corp., Detroit 31, Mich.
DUPLEX Truck Co., Lansing 4, Mich.
FEDERAL Motor Truck Co., Detroit 9, Mich.
FORD Motor Co., Dearborn, Mich.
FOUR-WHEEL Drive Auto Co., Clintonville, Wisc.
FREIGHTLINER Corp., Portland, Ore.
GMC Truck & Coach Div., GM Corp., Pontiac 11, Mich.
KENWORTH Motor Truck Corp., Seattle 11, Wash.
LINN Coach & Truck Div., Great American Industries, Oneonta, N. Y.
MARMON-HERRINGTON Co., Indianapolis 7, Ind.
OSHKOSH Motor Truck Inc., Oshkosh, Wisc.
PETERBUILT Motor Co., Oakland, Calif.
REO Motors, Inc., Lansing 20, Mich.
STERLING Motors Co., Inc., Milwaukee 1, Wisc.
STUDEBAKER Corp., South Bend 27, Ind.
TRUCKSTELL, Inc., Cleveland 14, Ohio.
WALTER Motor Truck Co., Ridgewood, L. I., N. Y.
WARD LA FRANCE Truck Corp., Elmira, N. Y.
WHITE Motor Co., Cleveland 1, Ohio.
WILLYS-OVERLAND Motors, Inc., Toledo 1, Ohio.

## U. S. ROTARY WING AIRCRAFT

For details of their products see page 153.

AMERICAN Helicopter Co., Inc., Manhattan Beach, Calif.
BELL Aircraft Corp., Buffalo 5, N. Y.
HILLER Helicopters, Palo Alto, Calif.
KAMAN Aircraft Corp., Windsor Locks, Conn.
KELLETT Aircraft Corp., Helicopter Div., Camden 11, N. J.
McDONNEL Aircraft Corp., St. Louis 3, Mo.
PIASECKI Helicopter Corp., Morton, Penna.
ROTOR-CRAFT Corp., Glendale 1, Calif.
SIKORSKY Aircraft Div., United Aircraft Corp., Bridgeport 1, Conn.

## U. S. CIVIL AND MILITARY AIRCRAFT

For details of their products see pages 150 and 152.

ATLAS Aircraft Co., Hemet, Calif.
BEECH Aircraft Corp. (Beechcraft), Wichita 1, Kan.
BELLANCA Aircraft Corp., New Castle, Del.
BOEING AIRPLANE Co., Seattle 14, Wash.
CESSNA Aircraft Co., Wichita 15, Kan.
CHANCE VOUGHT Aircrafft Div., United Aircraft Corp., Dallas, Tex.
CHASE Aircraft Co., Inc., West Trenton, N. J.
CONSOLIDATED VULTEE Aircraft Corp., (Convair), San Diego 12, Calif.
DOUGLAS Aircraft Co., Inc., Santa Monica, Calif.
FAIRCHILD Aircraft Div., Fairchild Engine & Airplane Corp., Hagerstown, Md.
FUNK Aircraft Co., Coffeyville, Kan.
GRUMMAN Aircraft Engineering Corp., Bethpage, L. I., N. Y.
JAMIESON Aircraft Co., DeLand, Fla.
LOCKHEED Aircraft Corp., Burbank, Calif.
The GLENN L. MARTIN Co., Baltimore 3, Md.
McDONNELL Aircraft Corp., St. Louis 3, Mo.
MOONEY Aircraft, Inc., Wichita, Kan.
NORTH AMERICAN Aviation, Inc., Los Angeles 45, Calif.
NORTHROP Aircraft, Inc., Hawthorne, Calif.
PIPER Aircraft Corp., Lock Haven, Penna.
REPUBLIC Aviation Corp., Farmingdale, L. I., N. Y.
RYAN Aeronautical Co., San Diego, Calif.

## CITY AND INTERCITY BUSES

For details of their products see pages 142 and 143.

ACF-BRILL Motors Co., Philadelphia 42, Penna.
BEAVER Metropolitan Coaches, Inc., Beaver Falls, Penna.
C. D. BECK & Co., Inc., Sidney, Ohio.
CUB Industries, Inc., White Pigeon, Mich.
FITZJOHN Coach Co., Muskegon, Mich.
FLEXIBLE Co., Loudonville, Ohio.
General American AEROCOACH, East Chicago, Ind.
GMC TRUCK & Coach Div., General Motors Corp., Pontiac 11, Mich.
KALAMAZOO Coaches, Inc., Kalamazoo 11, Mich.
MACK Manufacturing Corp., New York 1, N. Y.
MARMON-HERRINGTON Co., Inc., Indianapolis 7, Ind.
REO Motors, Inc., Lansing 20, Mich.
SOUTHERN COACH Mfg. Co., Inc., Evergreen, Ala.
TRANSIT BUSES, Inc., Detroit 27, Mich.
TWIN COACH Co., Kent, Ohio.
WHITE Motor Co., Cleveland 10, Ohio.

## AMERICAN TRACTORS

For details of their products see pages 144-149.

ALLIS-CHALMERS Mfg. Co., Milwaukee 1, Wisc.
B. F. AVERY & Sons Co., Louisville 8, Ky.
J. I. CASE Co., Racine, Wisc.
CATERPILLAR TRACTOR CO., Peoria 8, Ill.
The CORBITT Co., Henderson, N. C.
JOHN DEERE Waterloo Tractor Works, Deere Mfg. Co., Waterloo, Iowa.
EARTHMASTER Div., Adel Precision Products Corp., Burbank, Calif.
FATE-ROOT-HEATH Co. (Silver King), Plymouth, Ohio.
The FEDERAL Machine & Welder Co., Tractor Div. (Ustrac), Warren, Ohio.
HARRY FERGUSON, Inc., Detroit 11, Mich.
FORD Motor Co., Dearborn, Mich.
FRIDAY TRACTOR CO., Hartford, Mich.
GIBSON Manufacturing Corp., Longmont, Colo.
INTERNATIONAL HARVESTER Co., Chicago 1, Ill.
LOVE Tractor, Inc., Eau Claire, Mich.
MASSEY-HARRIS Co., Racine, Wisc.
MINNEAPOLIS - MOLINE Co. (M - M), Minneapolis 1, Minn.
The OLIVER Corp., Charles City, Iowa.
The OLIVER Corp., Industrial Div. (Cletrac), Cleveland 17, Ohio.
PIEDMONT Tractor Div., Inexco Corp., (Tiger), Fort Lee, N. J.
R. H. SHEPPARD Co., Inc., Hanover, Pa.

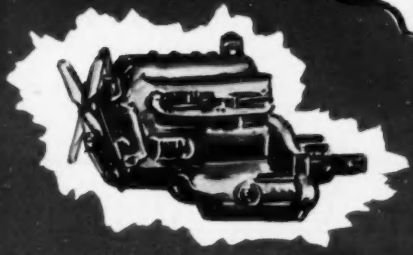
## AUTOMOTIVE GASOLINE ENGINES

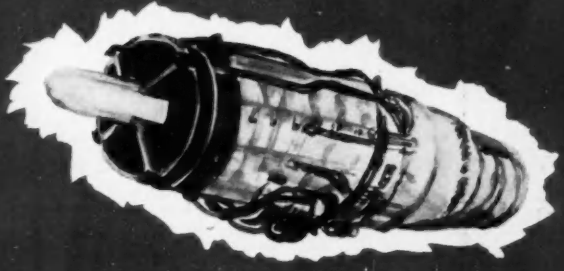
For details of their products see pages 156-165.

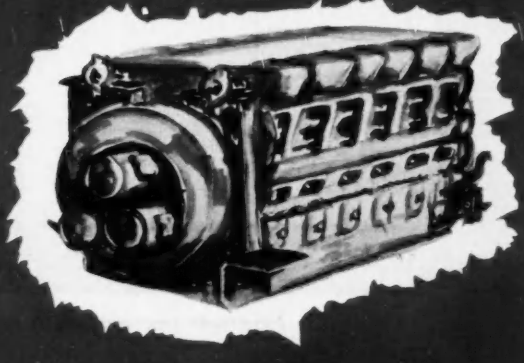
ALLIS-CHALMERS Mfg. Co., Milwaukee 1, Wisc.
The AUTOCAR Co., Ardmore, Penna.
BRENNAN Motor Mfg. Co., Syracuse 2, N. Y.
The BUDA Co., Harvey, Ill.
BUFFALO Gasoline Motor Co., Buffalo 7, N. Y.
CHEVROLET-Central Office Div., General Motors Corp., Detroit 2, Mich.
CHRIS-CRAFT Corp., Algonac, Mich.
CHRYSLER Corp., Marine & Industrial Engine Div., Detroit 31, Mich.
CLIMAX Engine & Pump Mfg. Co., Clinton, Iowa.
CONTINENTAL Motors Corp., Muskegon 82, Mich.
DODGE Division, Chrysler Corp., Detroit 31, Mich.
FORD Motor Co., Dearborn, Mich.
GMC TRUCK & Coach Div., General Motors Corp., Pontiac 11, Mich.
GRAY MARINE Motor Co., Detroit 7, Mich.

*(Turn to page 368, please)*

# Engine Section







## ENGINE MANUFACTURERS IN THIS SECTION

- Buda Company
- C.A.V. Division Lucas Electrical Services, Inc.
- Continental Motors Corporation
- Cummins Engine Company
- Detroit Diesel Engine Division
- Ford Motor Company, Industrial Engine Dept.
- Hercules Motors Corporation
- Waukesha Motor Company
- Wisconsin Motor Corporation

# 6-cylinder—heavy duty

# WAUKESHA ENGINES

## DIESEL • PROPANE • GASOLINE

### 265 cu. in. to 1197 cu. in.

Now, as always, Waukesha Engines are built around available fuels—to give the greatest utilization and efficiency possible. Propane—for 15 years—has been the standard fuel on thousands of Waukesha Engines in railway service. In its 45 years of building heavy duty internal combustion engines, Waukesha pioneered in fuel research; made standardized fuel testing equipment from the first. High compression and high controlled turbulence adapt Waukesha Engines to burn all modern refined petroleum fuels. Consult Waukesha on all your power needs.

Send for descriptive bulletins on any or all of these engines.

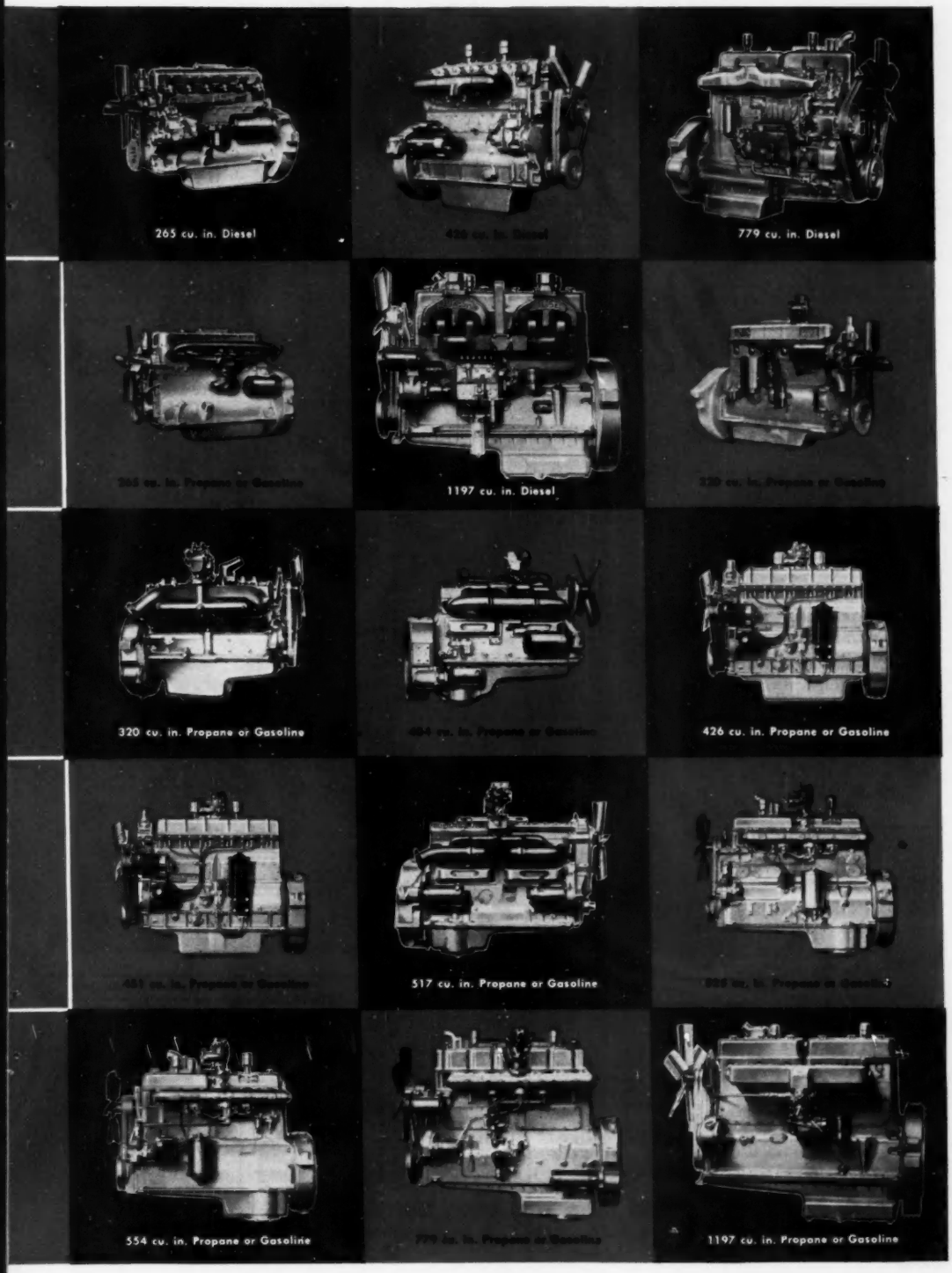
| Model | Bore and Stroke, In. | Displ. Cu. In. | Max. Hp. | Rpm. |
|---|---|---|---|---|
| **DIESEL ENGINES** | | | | |
| 190-DLCA | 3¾ x 4 | 265 | 85 | 2600 |
| 135-DKA | 4½ x 5 | 426 | 135 | 2800 |
| 148-DK | 5¼ x 6 | 779 | 198 | 2000 |
| 6-WAKD | 6¼ x 6½ | 1197 | 240 | 1800 |
| **PROPANE or GASOLINE ENGINES** | | | | |
| 190-GL | 3¾ x 4 | 265 | 66 | 2400 |
| 195-GKA | 4⅛ x 4 | 320 | 122 | 3000 |
| 6-BZ | 4 x 4¼ | 320 | 104 | 3000 |
| 6-MZA | 4¼ x 4¾ | 404 | 128 | 2800 |
| 135-GKA | 4¼ x 5 | 426 | 141 | 2800 |
| 135-GZA | 4⅜ x 5 | 451 | 150 | 2800 |
| 6-SRKR | 4⅝ x 5⅛ | 517 | 125 | 2250 |
| 140-GKB | 4½ x 5½ | 525 | 172 | 2600 |
| 140-GZB | 4⅝ x 5½ | 554 | 188 | 2600 |
| 145-GKB | 5¼ x 6 | 779 | 224 | 2100 |
| 6-WAK | 6¼ x 6½ | 1197 | 235 | 1800 |

*Dependable Power for*

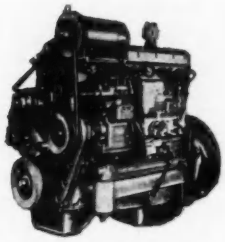
- Trucks
- Buses
- Tractors
- Fire Trucks
- Rescue Squad Cars
- Airport Crash Trucks
- Package-Delivery Cars
- Off-Highway Tractors
- Pumps
- Electrical Machinery
- Industrial Equipment
- Mining
- Oil Fields
- Farm Power
- Public Utilities
- Earth Moving Equipment

—and many other heavy duty requirements

WAUKESHA MOTOR COMPANY, WAUKESHA, WIS. • NEW YORK, TULSA, LOS ANGELES


265 cu. in. Diesel
779 cu. in. Diesel
1197 cu. in. Diesel
320 cu. in. Propane or Gasoline
426 cu. in. Propane or Gasoline
517 cu. in. Propane or Gasoline
554 cu. in. Propane or Gasoline
1197 cu. in. Propane or Gasoline

# Cummins CUSTOM BUILT Diesels



**JBS-600 Cummins Diesel**—Years of research into higher RPM possibilities have led to the introduction of lightweight JBS-600 Cummins Diesel, 150 HP at 2500 RPM. Weighing only 1545 lbs., this supercharged Diesel was designed to meet requirements for low-cost, lightweight power in medium-heavy trucks and similar applications.

**BUILT**

Seventy-seven models of Cummins Diesels provide an engine for your job in the 50 to 550 HP range. Optional equipment is available to match your specific operating requirements.

Cummins advantages: Engines, units and assemblies are interchangeable . . . service and parts problems simplified . . . replacement parts inventories reduced . . . down-time is held to a minimum . . . dependable, low-cost power in all your equipment.

**Dependable power.** Cummins Diesels have established long records of proved performance and dependable operation in the tough, heavy-duty jobs.

Cummins do more work per day at lower cost in heavy-duty applications, and they have what it takes to stay on the job month-after-month without costly down-time.

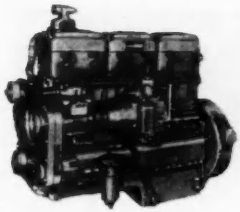
**Lower operating costs.** Cummins Diesels reduce fuel bills because exclusive mechanical features of the Cummins Fuel System assure accurate metering of fuel, efficient preparation, and controlled injection. Designed and built for years of service on the toughest jobs, they last longer and reduce maintenance costs because of their inbuilt ruggedness.

On your job where dependable operation and low fuel and maintenance costs over long periods of uninterrupted operation determine the margin of profit, Cummins Diesels increase your profits.

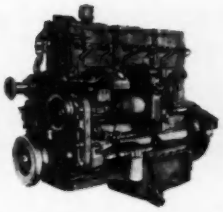
**Continuous operation.** Fully tested and proved under the most adverse operating conditions, on jobs where constant, uninterrupted operation is essential, Cummins Diesels have consistently demonstrated their unfailing reliability and flexibility in both constant and variable load operations.

**CONDENSED SPECIFICATIONS**

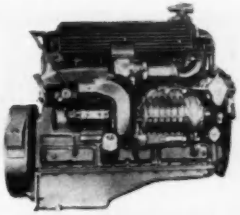
| Models | Cylinders | Bore (In.) | Stroke (In.) | Displacement (Cu. In.) | HP (Max.) | RPM (Max.) |
|---|---|---|---|---|---|---|
| AA-AAI-AI-AIP-AM | 6 | 4 | 5 | 377 | 100 | 2200 |
| HRB-HRBI-HRI-HRIP-HRP-HRM | 4 | 5⅛ | 6 | 495 | 110 | 1800 |
| JBS | 6 | 4⅛ | 5 | 401 | 150 | 2500 |
| HB-HBI-HI-HIP-HP-HM | 6 | 4⅞ | 6 | 672 | 150 | 1800 |
| HRB-HRBI-HRI-HRIP-HRP-HRM | 6 | 5⅛ | 6 | 743 | 165 | 1800 |
| HRBB-HRBBI* | 6 | 5⅛ | 6 | 743 | 175 | 2000 |
| HBS-HBIS-HIS-HPS | 6 | 4⅞ | 6 | 672 | 200 | 1800 |
| NHB-NHBI-NHI-NHP-NHM | 6 | 5⅛ | 6 | 743 | 200 | 2100 |
| NHHB-NHHBI | 6 | 5⅛ | 6 | 743 | 200 | 2100 |
| HRBS-HRBIS-HRIS-HRPS-HRMS | 6 | 5⅛ | 6 | 743 | 225 | 1800 |
| NHBS-NHBIS-NHIS-NHPS-NHMS | 6 | 5⅛ | 6 | 743 | 275 | 2100 |
| NHHBS-NHHBIS | 6 | 5⅛ | 6 | 743 | 275 | 2100 |
| NHRBS-NHRBIS-NHRIS-NHRPS-NHRMS | 6 | 5⅛ | 6 | 743 | 300 | 2100 |
| NVHBI-NVHI-NVHM | 12 | 5⅛ | 6 | 1486 | 400 | 2100 |
| NVHBIS-NVHIS-NVHMS | 12 | 5⅛ | 6 | 1486 | 550 | 2100 |
| LI-LP-LM | 6 | 7 | 10 | 2309 | 250 | 1000 |
| LRI-LRP-LRM | 6 | 7¼ | 10 | 2477 | 300 | 1100 |
| LRI-GAS | 6 | 7¼ | 10 | 2477 | 315 | 1100 |



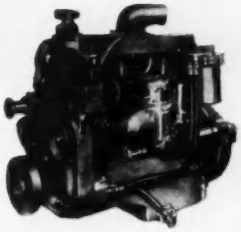
**H-600 and HR-600 Cummins Diesels**—Introduced in 1932, H-600 Cummins Diesel was the first successful high-speed Diesel to be developed. This 150 HP engine has been the standard for comparison of automotive Diesels since its introduction. HR-600 is a recent development based on H-600 and has a maximum rating of 165 HP at 1800 RPM.



**HRBB-600 Cummins Diesel**—Design changes to allow operation at higher RPM's are incorporated in HRBB-600, 175 HP at 2000 RPM. Low fuel consumption, fully counterbalanced crankshaft, and torsional vibration damper are design features of this engine.



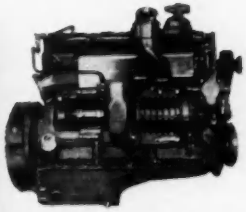
**HS-600 and HRS-600 Cummins Diesels**—Supercharged Cummins Diesel HS-600 has been successfully applied since 1937 to a wide variety of applications requiring 200 HP. Now HRS-600 supercharged Cummins Diesel is available for applications requiring up to 225 HP.



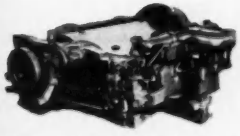
**NH-600 Cummins Diesel**—More 200 HP model NH-600 Cummins Diesels have been delivered during recent months in new heavy-duty highway trucks than any other engine, gasoline or Diesel. Low fuel costs and low maintenance costs combined with outstanding performance are reasons for this acceptance by truckers.

# NOT ONCE BUT TWICE

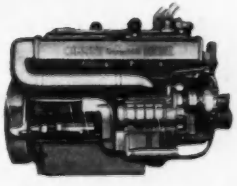




**NHS-600 and NHRS-600 Cummins Diesels**—275 HP model NHS-600 and 300 HP model NHRS-600 are supercharged engines. Supercharging results in up to 50% more horsepower from the basic NH-600 Cummins Diesel and with approximately the same weight. These Cummins Diesels possess the lowest weight-lbs. per HP of any Diesel engines in their power range. The new DD fuel pump is standard on these models.



**NHH-600 and NHHS-600 Cummins Diesels**—NHH-600 is a new horizontal Cummins Diesel designed especially for underfloor installation in buses, rail cars, and other equipment in which low engine height is a necessity. This engine develops 200 HP at 2100 RPM. Supercharged NHHS-600 Cummins Diesel, rated 275 HP at 2100 RPM, is designed for similar jobs requiring more power.



**NVH-1200 and NVHS-1200 Cummins Diesels**—The two newest four cycle, 12 cylinder, V-type Cummins Diesels give operators of automotive and industrial equipment all the advantages of high-speed Diesel operation in the higher horsepower range. The supercharged NVHS-1200 furnishes more power than any high-speed Diesel now in production. It has a maximum rating of 550 HP at 2100 RPM. The NVH-1200 has a maximum rating of 400 HP at 2100 RPM.

# Diesel power by CUMMINS

Lightweight High-speed Diesel Engines (50-550 hp) for:
On-highway trucks • off-highway trucks • buses • tractors • earthmovers • shovels • cranes industrial locomotives • air compressors • logging yarders and loaders • drilling rigs centrifugal pumps • generator sets and power units • work boats and pleasure craft.

CUMMINS Dependable DIESEL

TRADEMARK REG. U. S. PAT. OFF.

**CUMMINS ENGINE COMPANY, INC. • COLUMBUS, INDIANA**

**Export: CUMMINS DIESEL EXPORT CORPORATION • Columbus, Indiana, U. S. A. • Cable: CUMDIEX**

# WHERE ELSE CAN YOU GET ALL THIS?

CONTINENTAL MOTORS · Powerful as the Nation · AMERICA'S STANDARD

- Re-designed combustion chamber for higher compression.
- New high-output camshaft, with cam contours designed to improve valve action and prolong lives of valves and springs.
- New larger diameter sodium-cooled exhaust valves, stellite-faced for resistance to pitting, burning and warping.
- Positive rotary exhaust valve action preventing power lows and spring damage due to carbon deposits on valve seats.
- Chromium-plated top piston ring at maximum distance below top of piston for higher oil economy coupled with long life for cylinder bore and rings.
- Duplex downdraft carburetion.
- Automatic heat control for fast warm-up, easy starting, and economical running.
- Individually inspected water passages in cooling system. Coolant is directed to hottest areas.
- Full-length water jacketing, assuring water circulation completely around all cylinders, prevents distortion and makes for long service-free life.
- Continental Motors' patented system of individual porting, assuring uniform distribution of fuel mixture to all cylinders, promoting complete volitilization and burning of "heavy ends" of fuel, eliminating "loading," improving thermal efficiency, and making directional influences of carburetor and air cleaner much less critical.
- Water by-pass system and leakproof water pump.
- Alloy-steel exhaust valve seat inserts for long trouble-free life.
- Non-rusting Silchrome intake valves.
- Counterbalanced alloy steel crankshaft with vibration damper; Tocco-hardened journals.
- Non-corroding Durex-100 main and connecting rod bearings.
- Pressure lubrication with positive-displacement oil pump; Float-O screen assures supply of cleanest oil at all times.
- Built-in oil cooler and oil-filter.
- Helical-teeth timing gears for silence and long life.
- Tappets, bearings and crank seals removable without removing engine or transmission.
- Fuel pump located on engine's cooler side, to eliminate vapor lock.
- Expansion-valve type exhaust manifold.
- Multi-studded cylinder head for long gasket life and freedom from head distortion.
- Three-point suspension.

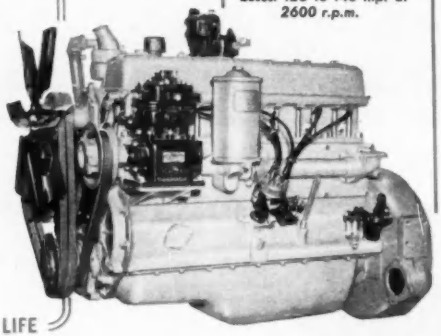
FOR ECONOMY • DEPENDABILITY • SMOOTHNESS • LONG LIFE

**It's already making a name for itself in leading makes of trucks—Continental Motors' new Red Seal T-6427. It's hauling heavier payloads, maintaining faster schedules, cutting costs by wringing the last ounce from modern fuels.**

**An unmatched array of quality features tells you why. Check the accompanying list. Compare with other engines, point by point, and you'll know why the new Red Seal T-6427 is doing an outstanding job on high-speed long-distance hauls.**

**Remember, too, that no matter what your specific transportation job, on or off the highway, there's a Red Seal model engineered and built to do it RIGHT.**

MODEL T-6427
*Six cylinder, overhead valve engine for trucks and buses. 126 to 145 h.p. at 2600 r.p.m.*



## Continental Motors Corporation
MUSKEGON, MICHIGAN

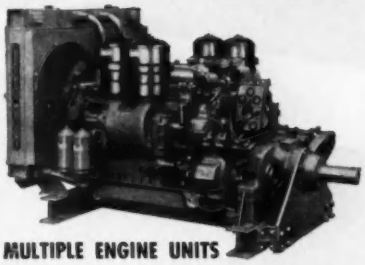
# GENERAL MOTORS

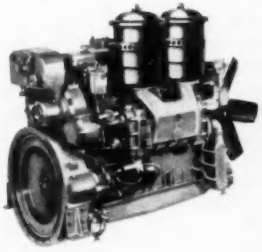
## Series 71 and 6-110 DIESEL ENGINES

GM GENERAL MOTORS DIESEL POWER

***FOR GREATER DIESEL POWER IN A MORE COMPACT ENGINE, SPECIFY "G.M."***

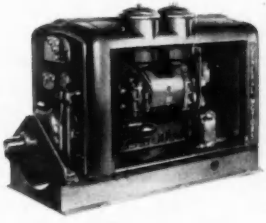
Here's the answer to your need for dependable, low-cost Diesel power—General Motors Series 71 and 6-110 Diesel engines. Operating on the 2-cycle principle—power at every piston downstroke—these space-saving engines give substantially more power per pound of weight, start on their own safe fuel and run smoothly and cheaply. They respond quickly to varying load demands, are easy to maintain. They use fewer gallons of lower cost fuel and burn it cleaner, with no objectionable smoke or toxic fumes.





### POWER UNIT ENGINES

Power Unit Engines are available in 2, 3, 4 and 6-cylinder models. Right or left side mounting of blower, exhaust manifold and other components. Radiators, power take-offs, flywheel housing adaptors and other accessories may be purchased to adapt it to a variety of installations. Illustrated is Model 6045 C.



### BASE MOUNTED POWER UNITS

Short base units are available in 2, 3, 4 and 6-cylinder models, enclosed or "open." Long base units with outboard shaft bearing in 3, 4 and 6-cylinder series 71 models. Complete instrument panels carry all necessary gauges in handy location. Structural steel bases; GM heavy-duty power take-off with clutch; quick electric starting. Illustrated is Model 6082 GM Diesel engine equipped with new compact General Motors torque converter.

### MULTIPLE ENGINE UNITS

Two basic General Motors Series 71 Diesel engines compactly mounted side-by-side and geared to a single drive-shaft form the "Twin 4" or "Twin 6" Diesel. Each engine has an individual clutch and individual as well as synchronized throttle controls. Thus one or both may be in use or "cut out" as desired, giving extreme flexibility of operation. GM Series 71 Diesels also available in "Quad 6," consisting of four 6-cylinder engines mounted on one base and geared to a single shaft. "Twin 6," Model 12103 is illustrated.

**Whatever your need for power, a GM Diesel engine will fill it economically and reliably. New General Motors Diesel Engine—Torque Converter units are now available in Series 71, 3,4,6, Twin 4 and Twin 6 models and the new 6-110. Write for specifications.**

| Engine | No. Cylinders | Bore and Stroke | Cylinder Displacement (Cu. In.) | BHP Industrial Models with Standard Equipment | | | Weight*, Lbs. (Industrial Engines) |
|---|---|---|---|---|---|---|---|
| | | | | Continuous at 1600 RPM | Rated at 1800 RPM | | |
| | | | | | 60 MM.♦ Injectors | 70 MM.♦ Injectors | |
| 2-71 | 2 | 4¼" x 5" | 142 | 43 | 49 | 58 | 1430 |
| 3-71 | 3 | 4¼" x 5" | 213 | 65 | 76 | 89 | 2000 |
| 4-71 | 4 | 4¼" x 5" | 284 | 87 | 103 | 120 | 2300 |
| 6-71 | 6 | 4¼" x 5" | 426 | 130 | 153 | 178 | 2800 |
| Twin 4 | 8 | 4¼" x 5" | 568 | 170 | 203 | 236 | 4700 |
| Twin 6 | 12 | 4¼" x 5" | 851 | 260 | 300 | 349 | 5440 |
| Quad 6 | 24 | 4¼" x 5" | 1702 | 520 | 600 | 698 | 12065 |
| | | | | | Normal | Maximum | |
| 6-110 | 6 | 5" x 5.6" | 660 | 186 | 229 | 254 | 4070 |

*Weights shown are for base-mounted power units complete with accessories.
♦Applies to Series 71 engines only.



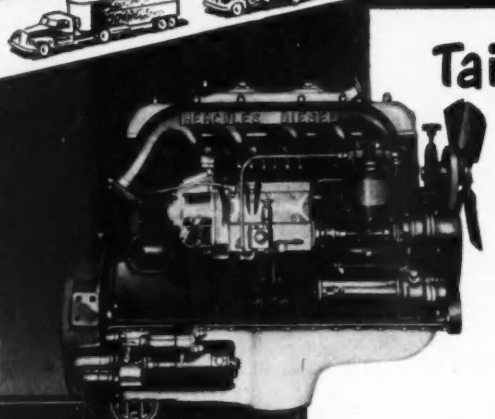
### *New GM 6-110 Engine!*

Here's *more power* for you in a brand new GM Diesel engine that gives you up to 50% higher horsepower ratings than previous models with a reduced weight-to-horsepower ratio.

It's GM Diesel's new 275 H.P. "6-110"—a rugged, heavy-duty six-cylinder engine embodying GM's successful 2-cycle principle, and built to meet increasing demands for GM economy, efficiency and dependability over an extended range of power requirements. Available with a wide choice of accessory arrangements to meet any mobile or portable power requirement.

**DETROIT DIESEL ENGINE DIVISION ★ GENERAL MOTORS CORPORATION ★ DETROIT 28, MICHIGAN**

# POWER

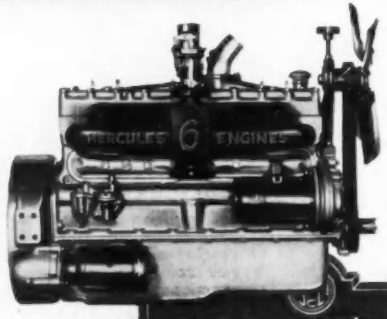


## Tailored to fit YOUR JOB!

Whether you build trucks or operate them, it is important that the engine in them measures up to the toughest of hauling assignments the trucking industry has to offer. Hercules engines solve this problem. Built in a broad range of piston displacements and horsepower ratings they offer a wide selection in both gasoline and diesel to insure . . . the most practical size for the job . . . lowest possible cost-per-mile of operation . . . high torque characteristics for maximum payloads . . . and ample reserve to master difficult terrain. You are invited to draw upon Hercules' many years of experience in serving the truck industry when planning future power requirements.

**HERCULES DIESEL ENGINES**

Model DRX Hercules 6 cylinder Diesel Engine 529 cu. in. displacement




Model JXLD Hercules 6 cylinder Gasoline Engine 339 cu. in. displacement

**HERCULES GASOLINE ENGINES**

### HERCULES ENGINES 3 TO 500 H. P.

**GAS AND GASOLINE ENGINES**

| Model | Bore and Stroke | Cu. In. Displ. |
|---|---|---|
| **Two Cylinder** | | |
| BXB | 2⅞" x 3" | 39 |
| NXA | 3" x 4" | 56.5 |
| NXB | 3¼" x 4" | 66.3 |
| **Four Cylinder** | | |
| ZXA | 2½" x 3" | 59 |
| ZXB | 2⅝" x 3" | 65 |
| IXA | 3" x 4" | 113 |
| IXB | 3¼" x 4" | 133 |
| JX4E | 3⅛" x 4¼" | 164 |
| JX4C | 3⅜" x 4¼" | 188 |
| JX4D | 4" x 4¼" | 214 |
| **Six Cylinder** | | |
| QXA | 3⅛" x 4⅛" | 190 |
| QXB | 3¼" x 4⅛" | 205 |
| QXC | 3⅜" x 4⅛" | 221 |
| QXLD | 3 7/16" x 4¼" | 236.7 |
| JXE | 3½" x 4¼" | 245 |
| JXB | 3⅝" x 4¼" | 263 |
| JXC | 3¾" x 4¼" | 282 |
| JXD | 4" x 4¼" | 320 |
| JXLD | 4" x 4½" | 339 |
| WXC-3 | 4¼" x 4½" | 383 |
| WXLC | 4" x 4¾" | 358 |
| WXLC-3 | 4⅛" x 4¾" | 404 |
| TDXB | 4⅜" x 5¼" | 474 |
| RXB | 4½" x 5¼" | 501 |
| RXC | 4⅝" x 5¼" | 529 |
| RXLC | 4⅝" x 5¼" | 529 |
| RXLD | 4¾" x 5¼" | 558 |
| RXLDH | 4¾" x 5¼" | 558 |
| HXB | 5" x 6" | 707 |
| HXC | 5¼" x 6" | 779 |
| HXD | 5½" x 6" | 855 |
| HXE | 5¾" x 6" | 935 |

**DIESEL ENGINES**

| Model | Bore and Stroke Inches | Piston Displ. Cu. In. |
|---|---|---|
| **Two Cylinder** | | |
| DIXC | 4" x 4½" | 113.1 |
| DIXD | 4¼" x 4½" | 127.5 |
| **Four Cylinder** | | |
| DIX4B | 3¼" x 4" | 133 |
| DIX4D | 3⅝" x 4" | 166 |
| DOOB | 3¾" x 4½" | 198.8 |
| DOOC | 4" x 4½" | 226.2 |
| DOOD | 4¼" x 4½" | 255 |
| **Six Cylinder** | | |
| DIX6D | 3⅝" x 4" | 249 |
| DJXB | 3½" x 4½" | 260 |
| DJXC | 3¾" x 4½" | 298 |
| DJXH | 3¾" x 4½" | 298 |
| DJXHF | 3¾" x 4½" | 298 |
| DWXC | 4" x 4½" | 358 |
| DWXD | 4¼" x 4½" | 404 |
| DWXLD | 4¼" x 5" | 426 |
| DWXLDF | 4¼" x 5" | 426 |
| DRXB | 4⅜" x 5½" | 474 |
| DRXC | 4⅝" x 5½" | 529 |
| DFXB | 5" x 6" | 707 |
| DFXC | 5¼" x 6" | 779 |
| DFXD | 5½" x 6" | 855 |
| DFXE | 5⅝" x 6" | 895 |
| DFXH | 5¾" x 6" | 935 |
| DFXHF | 5¾" x 6" | 935 |
| **Eight Cylinder** | | |
| DNX V-8B | 5¼" x 6" | 1247 |
| DNX V-8C | 6" x 6" | 1348 |
| DNX V-8D | 6¼" x 6" | 1468 |
| DNX V-8DS | 6¼" x 6" | 1468 |

"Hercules POWER UNITS are available, equipped with any of the above engines"

HERCULES MOTORS CORPORATION - CANTON, OHIO, U. S. A.

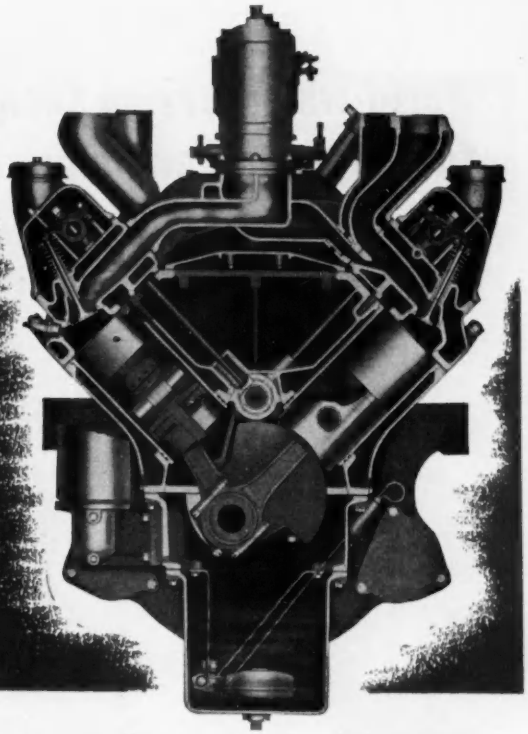
# Le Roi

*Announces*

## the V-8

# H-540

## A New, 200 H.P. Truck Engine



## . . . with advanced design that gives greater economy, smoother operation, longer life

Here it is at last—a modern, high-compression, V-8 engine for heavy-duty trucks. Designed and built by Le Roi—the pioneer manufacturer of engines for heavy-duty service. Years ahead! These features show why:

★ Modern V-8, high-compression, valve-in-head design!

★ 207 horsepower — speed range, 800 to 3200 RPM

★ Most compact engine in its horsepower range — overall length only 43"!

★ Lowest weight to horsepower ratio in the industry — only 6 lbs. per HP!

★ Smoother running engine at all speeds — extra rigidity of short box-like crankcase and five large main bearings reduce vibration!

★ Faster acceleration — quick response results from short stroke, light flywheel, and 8-cylinder power impulses!

★ Good high-speed performance — large bore and short stroke provide ample valve area. Unique combustion chamber shape having ample quench area retards detonation!

★ Extra protection — engine is safeguarded by full-flow by-pass filters that keep the oil clean!

These are only a few of many features that make the H-540 the most outstanding engine there is for heavy-duty trucks — that give you better performance and lower operating costs. Get all the facts — send coupon today for the H-540 catalog.

**Condensed H-540 Specifications**

| | |
|---|---|
| Number of cylinders | 8 |
| Bore and stroke, inches | 4½ x 4¼ |
| Displacement, cubic inches | 540 |
| Horsepower, rated at rpm | 207/3000 |
| Weight as illustrated, lbs. | 1250 |

**LE ROI COMPANY**
**MILWAUKEE 14, WISCONSIN**
**Plants: Milwaukee • Cleveland • Greenwich, Ohio**

Tear out this coupon and mail TODAY!

LE ROI COMPANY
1706 S. 68th Street, Milwaukee 14, Wisconsin

*Please send me complete information on the "advanced design" features of your new H-540 engine for heavy-duty trucks.*

Name _____ Position _____

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# World-wide service facilities for World-finest fuel injection equipment



When diesel engines go abroad there must be service facilities at the other end to give them specialist attention. C.A.V. maintains a world-wide network of service agents or depots, with finely-trained mechanics or special-tool equipment for this purpose. You can be sure there's an official service station to meet the maintenance needs of vehicles equipped with C.A.V. Fuel Injection Equipment in every part of the globe.

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## Fuel Injection and Electrical Equipment

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174-345A

# Your No. 1 Source for

## WISCONSIN MOTOR CORPORATION





4-cycle single cylinder
3 to 6 hp.

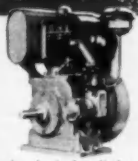
# Heavy-Duty *Air-Cooled* ENGINES!

As a potential or present user of internal combustion engines either as power components on original equipment or as auxiliary power units, you will readily recognize the advantages of dealing with an outstanding leader in the engine field.

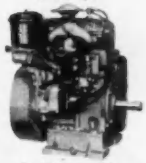
The complete engineering and manufacturing facilities and resources of this company are devoted *exclusively* to designing and building HEAVY-DUTY AIR-COOLED ENGINES. There is nothing to divert attention from this highly specialized industrial operation.

Because constant engineering effort and manufacturing skill are applied entirely to the improvement and large volume production of WISCONSIN HEAVY-DUTY AIR-COOLED ENGINES, in a complete, all-purpose power range, you have the best assurance not only of dependable power units ideally suited to your power applications but, of equal importance . . . you have, here, the world's most dependable source of supply both for engines and original factory parts.

Supporting this endeavor are key distributors of impressive recognition in the territories they serve, and a staff of competent Wisconsin Motor Corporation field men, in close liaison between factory and customer. Your best interests are our primary interest.



4-cycle single cylinder
6 to 9 hp.



2-cylinder models
7 to 13 hp.



V-type 4-cylinder models
15 to 30 hp.

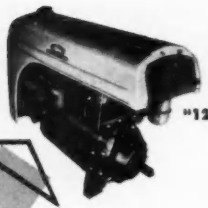



## WISCONSIN MOTOR CORPORATION

*World's Largest Builders of Heavy-Duty Air-Cooled Engines*

MILWAUKEE 46, WISCONSIN

# YOUR job is Well-Powered when it's Ford-Powered



Ford "120" POWER UNIT

***From the smallest***

***to the biggest***

• • • Ford Industrial Engines and Power Units offer a broad range of models—4-cylinder, sixes and eights—that cover just about every type of industrial application, and do it RIGHT. That's one big reason why more and more leading machinery and equipment builders look to Ford Industrial Engines and Power Units for the economical, reliable solution of their power problems.



Ford "337" POWER UNIT

**FORD POWER IS RIGHT 3 WAYS**

Ford
**INDUSTRIAL ENGINES**

## *Just look at these typical applications*

**FORD "120"** (4 cylinders, 120 cu. in. displacement)—feed mills . . . concrete mixers . . . road sweepers . . . sprayers . . . ditchers . . . snowplows . . . material handling . . . welders . . . generator sets

**FORD "226"** (six cylinders, 226 cu. in. displacement)—hoists . . . pumps . . . feed mills . . . generator sets . . . material handling equipment . . . earth boring machines . . . airport tractors . . . bituminous spreaders

**FORD "239"** (eight cylinders, V-type, 239 cu. in. displacement)—portable sawmills . . . feed mills . . . hoists and cranes . . . pumps . . . generator sets . . . electric stand-by units . . . positive displacement pumps . . . compressors . . . concrete mixers . . . straddle trucks

**FORD "254"** (six cylinders, 254 cu. in. displacement)—road machinery . . . hoists and cranes . . . pumps . . . feed mills . . . logging equipment . . . portable sawmills . . . jetting pumps . . . frost protection machinery . . . drag lines . . . earth boring machines . . . rock crushers . . . generator sets

**FORD "337"** (eight cylinders, V-type, 337 cu. in. displacement)—logging equipment . . . portable sawmills . . . drag lines . . . railroad switch engines . . . coal recovery machines . . . asphalt plants . . . rock crushers . . . snow removal machinery . . . feed mills . . . road machinery . . . generator sets . . . hoists and cranes . . . pumps

☆

1. **RIGHT POWER**—*your choice of five great engines to fit your application*
2. **RIGHT FEATURES**—*all the latest advancements of Ford's famed progressive engineering*
3. **RIGHT SERVICE** *and Parts—as near as the nearest Ford Dealer*

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**INDUSTRIAL ENGINE DEPARTMENT**
*Tractor & Industrial Engine Division*
**FORD MOTOR COMPANY**
**Highland Park, Michigan**

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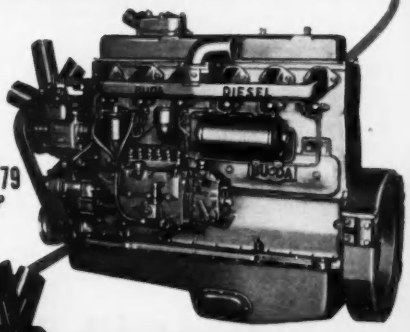
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**15050 Woodward Ave., Highland Park 3, Michigan**

I am interested in Industrial Power for _____
Send me new 1951 literature about Ford Industrial Engines and Power Units
☐ "120" ☐ "226" ☐ "239" ☐ "254" ☐ "337" as checked

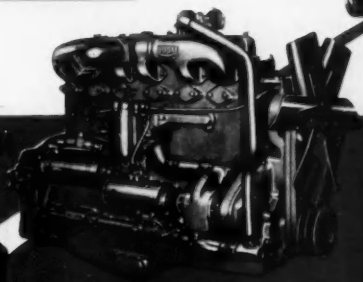
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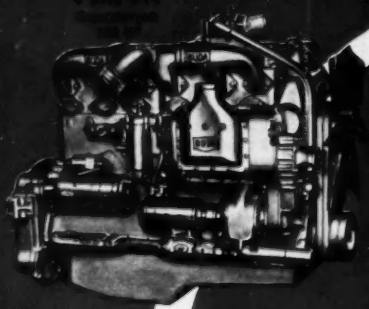
# BUDA DIESELS...

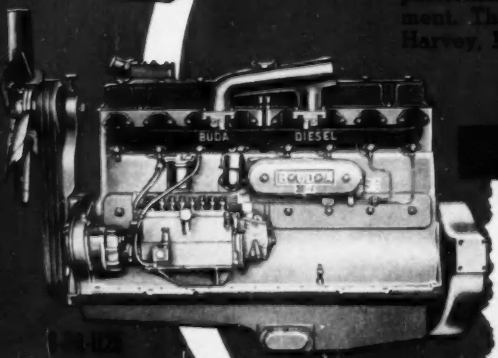
## a Complete Range of Dependable POWER

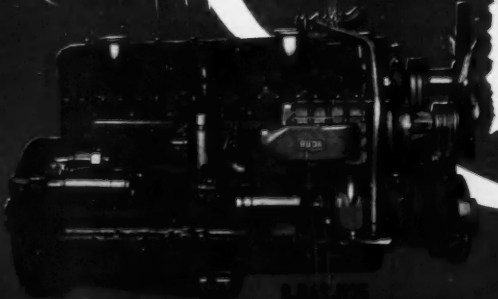



6-DA-779
185 HP







Truck owners and operators all over the country are realizing lower fuel cost per horsepower hour . . . less maintenance . . . more miles between overhauls . . . faster, more consistent schedules—with Buda "DA" Dyna-Smart Diesels.

Heavy hauling and earthmoving equipment powered by Buda Diesels haul heaped loads faster . . . make more round trips per day . . . with lower costs for every yard of earth moved.

Investigate the advantages of Buda Diesels and how they will improve the performance of your equipment. The Buda Company, Harvey, Illinois.

Write today for the New 1952 12 and 16 page bulletins on these great new Diesels. There is no obligation.

| MODEL | Bore and Stroke | Displ. Cu. Inches | Max. Torque @ RPM | HP At Max. Speed |
|---|---|---|---|---|
| 8-DAS-1125* | 5¼x6½ | 1125 | 1040@1450 | 350@2100 |
| 8-DA-1125 | 5¼x6½ | 1125 | 800@1100 | 287@2100 |
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| 6-DA-844 | 5¼x6½ | 844 | 640@1500 | 215@2100 |
| 6-DA-779 | 5¼x6 | 779 | 540@1400 | 185@2100 |
| 6-DTS-468* | 4¼x5½ | 468.3 | 370@1550 | 152@2500 |
| 6-DT-317 | 3⅝x5⅛ | 317.4 | 222@1500 | 91@2500 |
| 6-BD-273 | 3¾x4⅛ | 273 | 197@1350 | 75@2400 |

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# Development of Steel Shapes for Aircraft Components

*By Alfred H. Peterson*

Production Design Engineer,
Lockheed Aircraft Corp.

THE problems and high cost of removing surplus material on forgings and hogged out parts, the need for reduction in the number of component parts in airplanes, the occurrence of higher operating temperature conditions, and in the case of thin wings particularly, less space for structural members all indicate that extruded, rolled and drawn steel shapes will become increasingly important in aircraft design. Some recent developments and problems related to steel shapes are discussed herein.

### Extrusion

The hot extrusion of steel has been considered more or less impracticable due to the scaling, carburization and galling of parts, the rapid wear on dies and the inability of lubricants to stand up under the required extruding temperatures.

Recently The Industrial Mobilization Section of USAF has sponsored a development involving the German presses at Adrian, Mich., and intended to produce a better, more economical propeller blade. Using this equipment, the Canton Forge Co. has successfully produced a tube as shown in Fig. 1 of low alloy steel having a maximum wall thickness variation of 0.008 in. The shiny appearance of the interior and the exterior finish indicated that the scaling and lubrication problems are on their way to solution.

The fins on the periphery of the tube were developed to form leading and trailing propeller edges. Two of the four will be machined off and were merely used to equally dispose the metal while extruding. It is understood that Hydropress, Inc., of New York, also is working with USAF on this development.

This remarkable job opens up a new field for airframe designers. Landing gear struts, pistons and cylinders as presently forged and machined are a large cost item and sometimes impose weight penalties due to forging tolerances. Die costs alone may run $10,000 to $15,000 and more. Since most of the cylinders are merely tubes with a few lugs thereon, these new developments

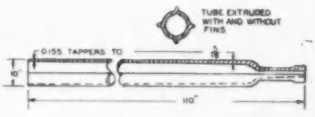



*Fig. 1—Tube of low alloy steel with maximum wall thickness variation of 0.008 in.*

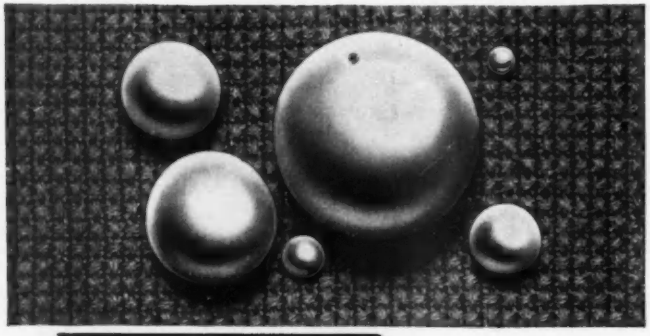
raise the question as to why it would not be possible to forge the lug areas in smaller, cheaper dies and extrude the tube sections as secondary operations.

A step in this direction is the Cleveland Pneumatic Tool Co. cylinder for B-36 gear produced by Canton Forge and shown in Fig. 2. This cylinder is produced by what might be called impact extruding, although done at forging temperatures.

Thus parts such as those shown in Fig. 3 and Fig. 4 might be produced at a fraction of the machining time now employed to hog out of solid forgings or bar. Incidentally, these parts lend themselves to hot upsetting or heading as well, and these methods also should be given wider scope in design.

(*Turn to page* 206, *please*)

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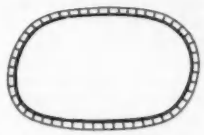
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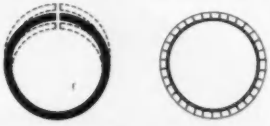
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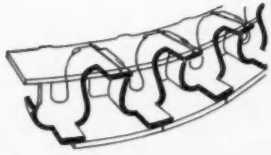
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(*Continued from page* 204)

### Hot Upsetting and Heading

The equipment used for these methods is very versatile and wider use in air-frame design would serve to reduce weight of raw product and machining time.

Operations usually begin with a bar or hand forged billet and proceed in steps in the same machine and set-up to the completed part. Dies may be made as inserts in the die block, and are correspondingly cheaper than large, one-piece drop forge dies.

The average available equipment will handle from two to four in. diameter bar, upset from eight to 12 in. of diameter and gather from 18 to 20 in. of length. The Industrial Mobilization Section of USAF has at Adrian, Mich., an upsetter capable of handling eight in. bar, upsetting to 24 in. diameter and gathers 30 in. of length. It is possible that some consideration will be given to assigning this unit to a plant on the West Coast to facilitate the fullest exploitation of its capabilities.

### Gap and Ring Rolling

Gap rolling, as generally employed, consists of passing preshaped rough billets between roller type dies to produce lengths not readily obtained by other forging methods. Ring rolling is essentially the same method, but produces circular parts of considerable diameter with varying shape, such as channels, tees, etc.

These methods are generally considered to be only applicable to large quantity production, typical examples being automotive axle shafts and cross members. The resultant product is generally rough and would require considerable machining.

The production of steel aircraft spars and bulkheads in limited quantities by these methods does not appear too feasible when compared to machining from bar or billet because of high roll cost and inherent inaccuracies in the equipment. Cheaper die materials and designs need development as well as experimentation to determine the maximum complexity and accuracy of part that can eventually be produced. The consensus of plants using this equipment is that drop forging today is more flexible and economical.




*Fig. 2—Cylinder produced by impact extruding.*

### Cold Drawn Shapes

Two possible applications of cold drawn shapes on the F-90, Fig. 5 and 6, would save considerable weight and cost over the conventional built up, riveted, bits-and-pieces structure. Regardless of the feasibility of cold drawing these shapes, one important factor imposes a drawback to full exploration of all possibilities of the method. This is the attitude of the hot mill operators whose facilities are entirely devoted to tonnage production. It is claimed that the set-up and take down time would be excessive and tie up equipment which could otherwise be producing in volume. To this is added the argument of excessive roll cost for small quantities required and high development cost necessary to produce thin, accurate shapes of the type desired by the aircraft industry.

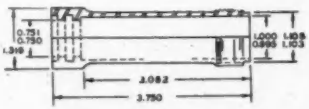



*Fig. 3—This part (shown as presently machined) could be produced economically by impact extruding at forging temperatures.*

Cold drawing firms generally produce

(*Turn to page* 210, *please*)

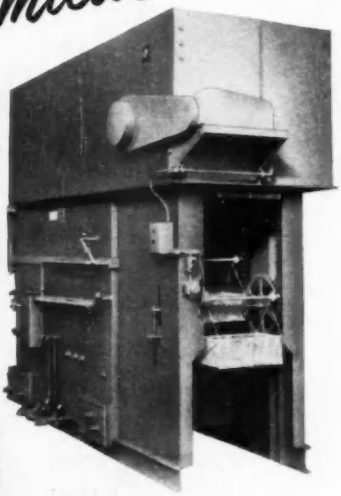
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(*Continued from page* 206)

from bar and rod. Any hot rolling performed by such plants preshapes the bar and rod to make it more suitable for cold drawing. Generally small hand mills are employed for this purpose. For example, one large producer has a one-stand roll with eight-in. faces for such work, and a shape requiring any degree of preforming entails a number of set-ups and a reheating of the material for each pass.

### Tolerance and Limits

The average hot mill tolerance on thickness is rarely under ±0.03 in. and will vary throughout the length of any given piece. Surface finish causes rapid wear of drawing dies. Access for rolls is important. No quote was obtainable on Fig. 7 for this reason even though it was agreed by one firm that a straight tee could have been hot rolled and cold drawn, and then the legs rolled to the angle shown. This lack of interest in the aircraft designer's needs in this case was typical and is tied directly to the limited quantities desired.

Long, thin legs create problems by either not filling or by splitting off during hot-rolling. For example, Fig. 6 could be expected to separate at the juncture of the upstanding leg and crossbar. Since the greatest volume of cold drawing is in items such as automobile hinge stock, Fig. 8, which are hot rolled and merely sized by cold drawing, the reluctance of the average firm to embark on anything more involved can be readily understood. A shape like Fig. 9 is also typical and is generally hot-rolled in hand and specialty mills from round bar and then cold drawn to final shape.

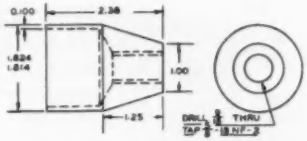



*Fig. 4—Impact extruding of this part would result in a saving of time over that required for machining.*

Uniformity of section is stressed in cold drawing. While a sprocket or gear section can be drawn, little success could be expected with a segmented gear shape having, say, only six teeth on a two in. diameter. If this diameter were ½ in., the task becomes practicable. Thus, a tee or cross is considered difficult and channels and I-beams beyond present know-how.

The average reduction per draw is about 1/32 in. up to about two in. of cross sectional area, greater beyond this in most cases.

Except for very small flat shapes, 0.125 in. is considered the present minimum thickness limit. The thin edges of shapes used for turbine blades perhaps represent the greatest advance and even here some machining of the thin edges is done.

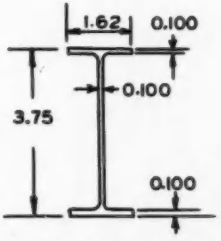


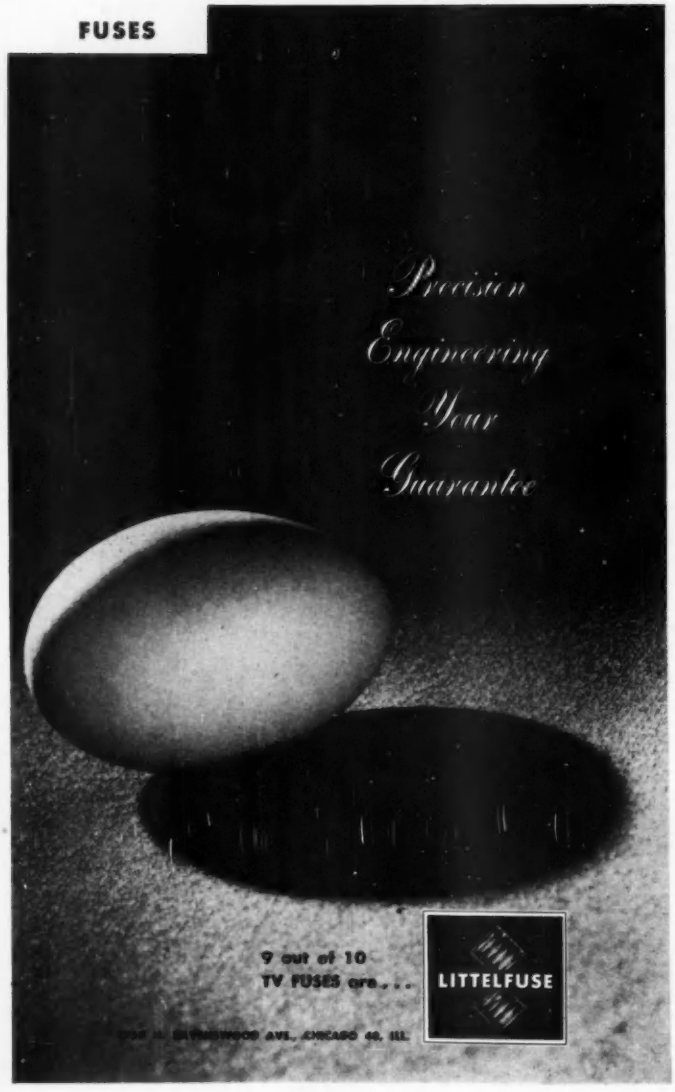

*Fig. 5—Weight and cost would be reduced by use of this cold drawn shape.*

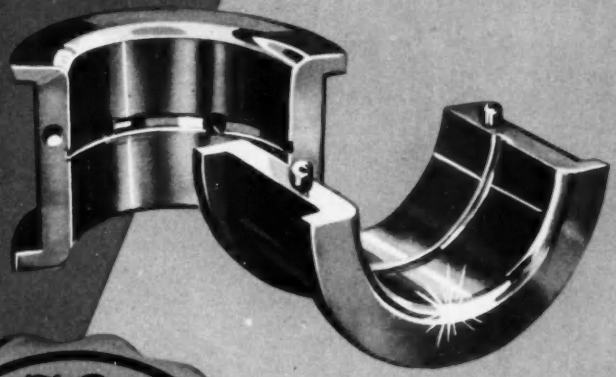
Internal corners may be 0.03 in. minimum while sharp external corners are preferred.

### Materials

Low carbon, low alloy and stainless alloy steels are all regularly drawn and physicals up to 170,000 psi ultimate ten-

(*Turn to page* 215, *please*)





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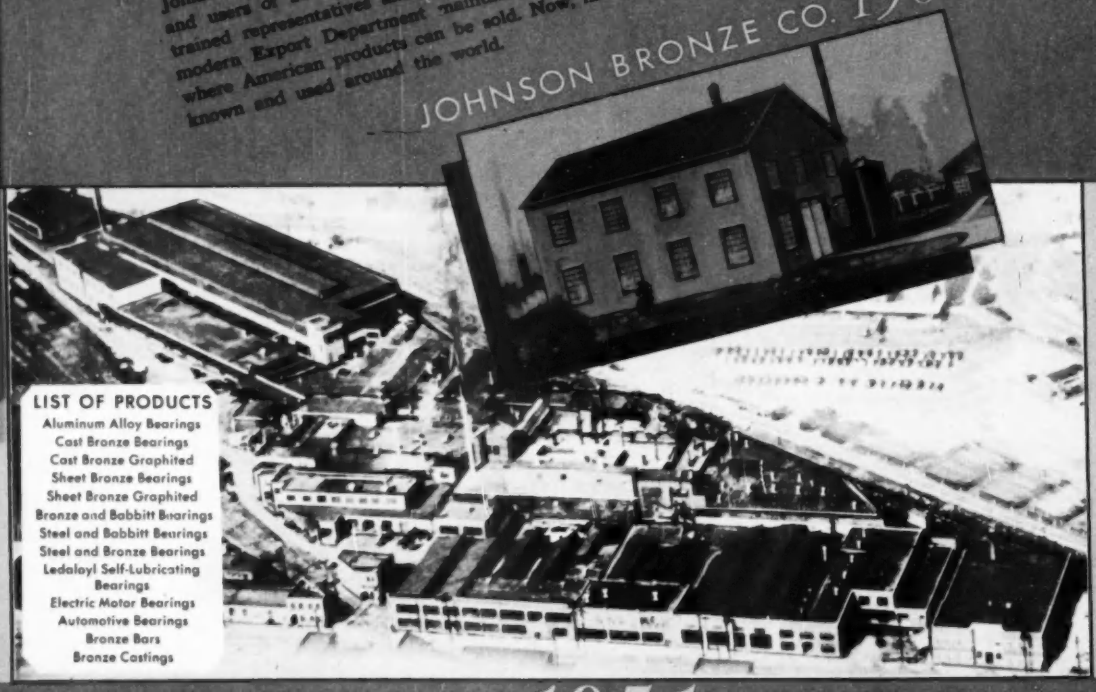
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(*Continued from page 210*)

sile strength have been regularly obtained by the cold work done.

### Machining of Shapes

A method which might be used to further the exploration of the limitations of cold drawing without incurring excessive costs in hot roll mills consists of a special machining technique which could be used for producing the initial shapes. These rough machined shapes could be produced in any quantity desired without excessive tool and set up time and to any reasonable configuration and tolerances.

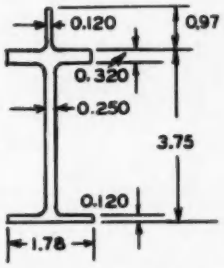



*Fig. 6—A cold drawn shape of this design would be lighter and cheaper than the conventional built-up structure.*

By determining the precise degree of reduction, the feasibility of staging draws, the extent of filling thin legs, the most workable materials and other unknowns in cold drawing first a more accurate understanding of what would be required in hot rolled shapes can be obtained at a relatively small cost. Then, if the cold drawing work is successful, a more realistic and expensive program of hot rolling can be considered.

### Conclusions

It can be concluded that if the aircraft industry is to obtain a wide variety of steel shapes in both the low and corrosion resistant steel alloys to the same degree as can now be obtained in aluminum alloys for the purpose of reducing weight and eliminating excessive fabrication costs, considerable research and development will be necessary. This research and development lies open on methods and techniques for:

1. The hot extrusion of steel shapes to close tolerances and in considerable length.
2. The cold drawing of steel shapes to obtain still closer tolerances, good surface finish, the thinnest sections possible with little or no limitation as to length.
3. The determination of the microstructure and physical properties of shapes produced as enumerated above.
4. Methods and techniques for the heat treatment of shapes and the elimination of warpage due to heat treatment or other phases of the operations employed.

It is further concluded that before

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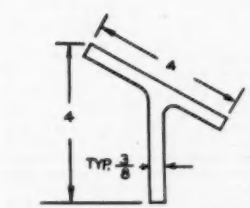



*Fig. 7—This shape could be produced by hot rolling and cold drawing with a straight tee, then the legs rolled to the angle shown.*

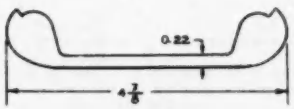



*Fig. 8—Automobile hinge stock.*




(*Continued from page* 215)

any development can be accomplished, except in a small way by individual airframe companies as the need arises, certainly a more open mind on the subject is vitally necessary among the responsible personnel of the steel fabricators. It is apparent that these people have not recognized; first, the need for this type of development for aircraft usage and second, that except under war conditions, quantities for any particular shape would be limited and the considerations leading to a development and production program must be evaluated accordingly.

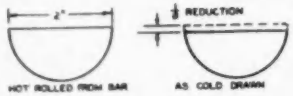



*Fig. 9—A shape which is generally hot-rolled from round bar and then cold drawn to final size.*


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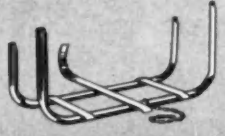
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## Business in Brief

**Written by the Guaranty Trust Co., New York, Exclusively for AUTOMOTIVE INDUSTRIES.**

General business activity in mid-February continued substantially higher than a year ago. Increases during this period were reported in department store sales, construction, and crude oil output. Wholesale prices advanced for the 13th consecutive week. For the week ended Feb. 17 the *New York Times* index of activity stands at 173.8, as compared with 163.5 in the preceding week and 148.7 a year ago.

The dollar value of department store sales in the week ended Feb. 24, as reported by the Federal Reserve Board, was equal to 274 per cent of the 1935-39 average, as compared with 272 in the week before. At this level, the value of sales was 24 per cent above that for the comparable week of last year. The total reported since the beginning of 1951 was 23 per cent more than the corresponding sum in 1950.

Production of bituminous coal and lignite in the week ended Feb. 17 is estimated at 10,930,000 net tons, 2,485,000 more than in the week before and 8,505,000 more than the comparable amount a year earlier, due to the strike.

Civil engineering construction volume reported for the five-day week ended March 1, according to *Engineering News-Record*, was $352.1 million, as compared with $223.8 million in the preceding week. The total recorded since the beginning of 1951, at $2890 million, is 67 per cent more than that in the corresponding period of 1950.

Production of electric power declined during the week ended Feb. 24. At 6833 million kilowatt-hours, total output was 16.7 per cent above the amount a year earlier, as compared with a year-to-year advance of 16.4 per cent shown in the preceding week.

Railway freight loadings in the week ended Feb. 24 totaled 734,794 cars, 0.8 per cent less than the figure for the week before but 34.4 per cent more than the corresponding number last year.

The wholesale price index of the Bureau of Labor Statistics for the week ended Feb. 20, at the record level of 183.4 per cent of the 1926 average, was 1.9 per cent higher than the level of Jan. 23 and 19.9 per cent above the level established a year ago.

Daily crude oil output in the week ended Feb. 25 averaged 5,945,150 barrels, 8250 more than in the preceding week and 945,150 above production in the similar period of 1950.

Member-bank reserve balances increased $132 million during the week ended Feb. 28. Underlying changes contributing to the additional reserves were decreases of $331 million in Treasury deposits with Federal Reserve banks and $49 million in foreign deposits with Federal Reserve banks. Important off-setting changes were decreases of $121 million in monetary gold stock and $95 million in Reserve-bank credit, and increases of $24 million in money in circulation and $16 million in Treasury cash holdings.

Total loans and investments of reporting member banks decreased $804 million during the week ended Feb. 21. An advance of $139 million in commercial, industrial, and agricultural loans was recorded. Total business loans, at $69,231 million, were $2246 million more than the comparable sum a year earlier.



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So, whatever your problem in "touch and GO" power transmission may be, let Twin Disc Engineers submit a recommendation. Their experience and the facilities behind them are unexcelled in the industrial power transmission field.

TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES
REG. U.S. PAT. OFF.

TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION, Rockford, Illinois

# AIRBRIEFS

(*Continued from page* 183)

tune of hundreds of millions of dollars since V-J Day. And yet they offer the Republic swept-wing fighter only the Sapphire, the Grumman F9F-5 and the Lockheed all-weather interceptor only the Tay. Had North American been able to offer our squadrons in Korea only the Gloster Meteor, and Grumman. our carrier squadrons only the DeHavilland Sea Vampire, something approaching a national scandal would surely have resulted.

## *Brief Interval*

Certainly the world's "biggest" aviation mystery is the Hughes Flying Boat, the bare mention of which creates a "what ever happened to it" atmosphere. Howard Hughes, of course, is as much a part of the American culture as television and the Republican Party (half the country is opposed to all three) and we are all quite used to his odd behavior, but the news that he is currently spending $300,000 a month on his flying boat should baffle even his most ardent fan. According to our own slide rule this works out to approximately $3,600,000 a year over the past five years, or eighteen million dollars. By coincidence, this is precisely the figure that the RFC originally put up for its construction, yet Hughes now comes forward and states that, in addition, he has invested seventeen million dollars of his personal funds in the project for "other than construction" purposes, a cost item the RFC has consistently overlooked. To jog their memory on this point, Hughes has filed a "friendly" suit against the RFC for $1,257,276 which he says the RFC realized on the sale of plant facilities in which the craft was built. In addition, he asks $476,299 to satisfy an escalator clause in his original agreement covering increases in cost of materials during the boats construction. Without attempting to follow the rope of these arguments, we are appalled that a claimed total of *thirty-five million dollars* has gone into this machine and that a personal fortune is being expended *every month* right now.

It was just forty months ago that Hughes hoisted this behemoth off the water a few feet and proved what Orville and Wilbur Wright proved forty years ago; that man can indeed fly. In some distant future Hughes will again take this giant off the water, and we are reasonably certain that a happy America will eagerly applaud further vindication of this maligned man's belief in his flying boat. He will have proved that man can fly a second time in the very same airplane.

## *Twin-Engine Hedge*

Buying of commercial transports has not only continued steadily since V-J Day, but has been enormously accelerated in the past twelve months; all of them piston-engine powered. Douglas still has 82 DC-6-type transports on order (after delivering 171) and Lockheed is at work on a backlog of 78 Constellations (after completing nearly 200) but the most interesting development is the rapidly-mounting comeback of the twin-engine transport. Glenn L. Martin Co. has received orders for a total of 101 of its new 4-0-4 twin-engine transports and Convair now has orders for 60 of its Model 340 Liners. These totals, of course, are substantial production runs of a commercial airline type by prewar standards, yet there are still more orders for these two types to continue.

Behind these orders lies a bit of forward-looking thinking on the part of the airline purchasers. In the event of all-out war mobilization, the Air Force is certain to immediately com-




SPEED PRODUCTION and PREVENT LEAKS ON AUTOMOTIVE ASSEMBLIES . . .




with "JOHN CRANE" ®

PLASTIC LEAD SEAL

The manufacturer of the tractor shown above cut costs, speeded production and improved product performance with "PLS"—the amazing "John Crane" non-hardening, all purpose sealing compound. It is used on *every* threaded and gasketed connection and has completely eliminated the leaks normally found during final inspection.

"PLS" will facilitate production in many ways. It holds gaskets in place on oil pans, transmission pans and rear axle housings; when used on shims in the differential housing, it compensates for surface finish variations; this remarkable compound even cuts out the need for gaskets on ground surfaces of bearing plates and gear housings.

- Underwriters' Approved
- Insoluble in All Petroleum Products
- Never Hardens
- Seals Permanently
- Prevents Galling, Seizing and Rust

***Test "PLS" at our expense. Your letter will bring a generous sample by return mail. Write Dept. AI-3, 1835 Cuyler Ave., Chicago 13, Ill.***

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PACKINGS AND MECHANICAL SEALS
CRANE PACKING COMPANY
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# ...TRIAL CYCLE

REDUCED COSTS
HIGHER WAGES TO WORKERS

GREATER MARKETS
GREATER PURCHASING POWER

COMPETITION
GREATER DEMAND

IMPROVED DESIGN
IMPROVED METHODS & EQUIPMENT

IMPROVED QUALITY
GREATER PRODUCTION

We are living in an industrialized world. Our ancestors worked much harder and longer hours than we do yet they could produce only the bare necessities of life. We, because of the tools we have to work with, can produce the equivalent of not only all the necessities of life but many luxuries as well.

New machine tools that increase the productivity of the worker enables the manufacturer to Reduce Costs and pay Higher Wages to Workers. Higher Wages creates Greater Purchasing Power and Greater Markets. This means Greater Demand for goods and encourages Competition.

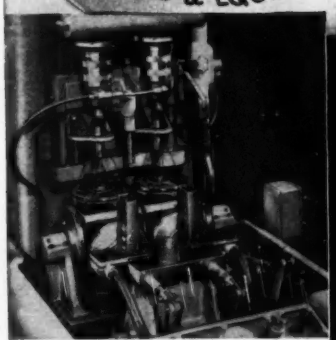
To meet this Competition the manufacturer must adopt Improved Methods and Equipment to get Improved Quality in his product and Greater Production. Greater Production means Reduced Costs and we start the cycle again.

Only by [illegible] and is [illegible] our [illegible] of progressive [illegible] man's [illegible] him with [illegible] tools can we [illegible] cycle spinning.

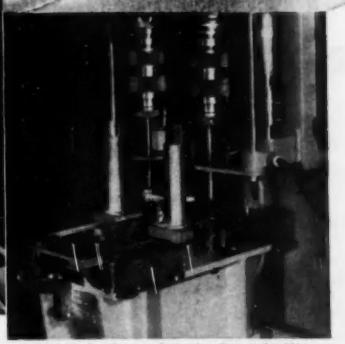
[illegible] automatic size con- [illegible] of the contributions MICRO-MATIC* has made to modern tooling. MICROSIZE has made possible automatic and semi-automatic Microhoning* machines. It has Improved Quality and Reduced Costs by holding dimensional tolerances more consistently and reducing inspection and scrap. It has increased the productivity of the worker many fold.

*Do not let obsolete methods and machine tools slow down your cycle.*

*Registered U. S. Patent Office



Drum type automatic fixture on MICROSIZE controlled Microhoning machine.



Automatic loading and ejecting fixture for Microhoning gears on double spindle Microhoning machine, made possible by MICROSIZE control.




Write for latest issue of Cross Hatch on the Industrial Cycle.

**Micromatic Hone Corporation** 8100 SCHOOLCRAFT AVENUE DETROIT 4, MICHIGAN

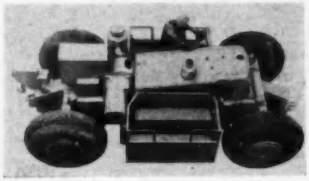
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55 George St., Brantford, Ontario, Canada • Micromold Manufacturing Div., Boston Post Road, Guilford, Connecticut

MICROHONING = STOCK REMOVAL + GEOMETRY + SIZE CONTROL + SURFACE FINISH

mandeer all of the four-engined transport aircraft in the nation and, in fact, has said so in announcement of mobilization policies. This means that all of the commercial passenger load of U. S. airlines will fall back on the remaining twin-engine equipment whose short range makes them unsuited for military logistics supply across the oceans. Thus, these heavy orders for twin-engine transports are an effective hedge against such action. So bright is the current outlook for twin-engine transports, that Lockheed is seriously studying a new twin-engine design and is discussing its sales possibilities with airline heads.

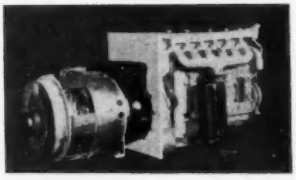
# Engineering Details of Diesel Electric Drive for Heavy Equipment

FIRST application of Diesel-electric drive in rubber-tire-mounted heavy equipment is found in the Tournatow, a recent development of R. G. LeTourneau, Peoria, Ill. This unique vehicle is powered by a military standard GMC six-cylinder, two-stroke Diesel engine developing 186 hp at 1800 rpm. Two generators, one alternating current and one direct current, are mounted in line with the engine. The d-c generator supplies power to each of the four drive wheels. This power is applied indirectly through a potentiometer type rheostat for precision control. The a-c generator supplies current to each of the two motors used to steer the front and rear wheels and to the motor operating the large-capacity winch on the rear of the unit. This current is controlled by individual switches mounted on the control panel.



*The Tournatow with an overall length of more than 17 ft has a turning radius of less than 14 ft.*

This three-unit power plant—engine, a-c generator and d-c generator—is held in position by four mounting bolts and can be removed quickly should overhaul be required. Connection between the power plant and motors is through flexible electric conductors, and the motors are placed at the points of application.



*Unit power plant consisting of d-c generator, a-c generator, and Diesel engine.*

Each drive wheel is suspended on ball and socket type bearings with drive motor, reduction gear train, drive gear, and wheel built as a single unit. Tires are 56 in. standard aircraft type. Wheels are interchangeable.

Steering motors are located at the front and rear of the unit and are individually controlled from the cockpit by means of switches. Limit switches automatically cut off the steering motors when the wheels have reached their limit of turn.

The winch is separately controlled by a switch on the control panel. The self-aligning, Le Tourneau fairlead bracket on the rear of the machine's frame structure permits pulls through a 180 deg arc, with a maximum side pull of 90 deg from the axis of the machine. The a-c motor and reduction gear box

(*Turn to page 222, please*)





PROGRESS
of a Century

**If you should check a list of companies operating in the United States in 1855 — the year of our founding — you would find that very few indeed have been able to survive the economic upheavals of nearly a century. Survival is conditioned upon maintaining high quality standards at all times.**

**SUPERSTRONG boxes and crates have always enjoyed a reputation for dependability because of their sturdy construction . . . SUPERSTRONG container design has been quick to adapt to changing shipping conditions . . . SUPERSTRONG service is undergoing constant expansion in order to handle customer requirements more quickly and efficiently.**

**You can't go wrong with SUPERSTRONG.**

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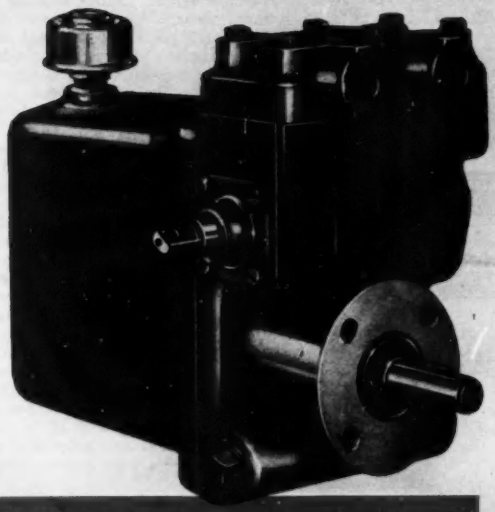
# The Hydraulic "Package" of a THOUSAND USES

# VICKERS POWER PACK

*Simplifies Hydraulic Design*

•

*Saves Money, Space and Time*



These three applications of the Vickers Power Pack indicate something of the extremely wide usage range of this hydraulic package.

Manufacturers have found it ideally suited to the largest variety of mobile as well as many stationary installations. It provides a compact, self-contained hydraulic system which is quickly and easily installed at low cost. Pump, relief valve, operating valves, oil tank and oil filter are all contained in the rugged, compact unit.

Vickers Power Pack is used on planters, cultivators, plows, stackers, loaders, harvesters, rakes, mowers, dump hoists, lifting tailgates, light duty scrapers, fork lift trucks, loaders, scoops, snow plows, etc. Check into its advantages for your accessory power source.

***WRITE FOR BULLETIN 46-48***

**VICKERS Incorporated**

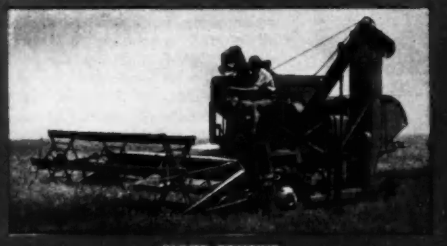
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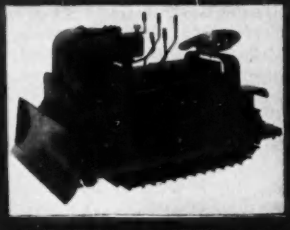
*ENGINEERS AND BUILDERS OF OIL HYDRAULIC EQUIPMENT SINCE 1921*

4434



**OLIVER COMBINE**

Vickers Hydraulic Power Pack provides fingertip, instant control of the twin-cylinder harvester control.



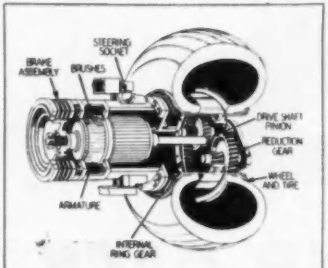
**WILLCO J-7 CRAWLER TRACTOR**

This powerful little general purpose tractor uses Vickers Hydraulic Power Pack for fingertip control of bull-dozer blade (46" wide x 18" deep), and other attachments.



**BEACON DOCK RAMP**

Vickers Hydraulic Power Pack powers vertical movement (24") to level with truck or freight car floors . . . also horizontal movement (14") where outer doors must seal when board not in use.

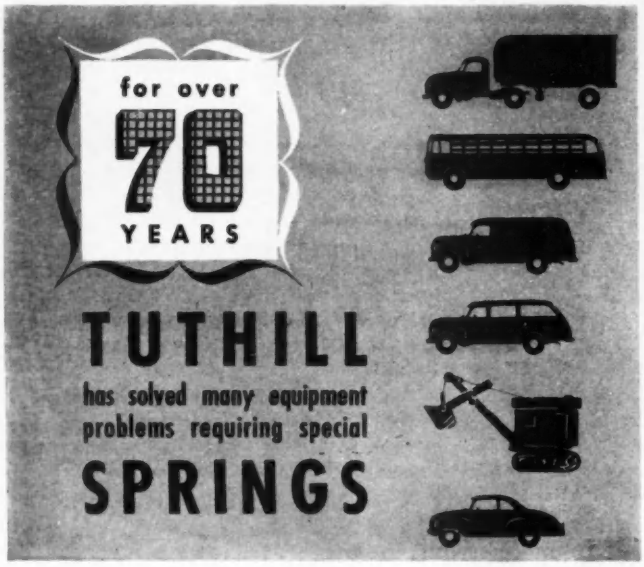



*Cutaway drawing of wheel and motor assembly.*

can deliver 30,000 lb line pull through the ¾-in. cable, and line speeds of 60 fpm. The automatic brake on the winch motor will hold the load instantly when the operator releases the control switch.

By virtue of the combined a-c and d-c systems in the Tournatow, the unit can be used at will as an auxiliary (standby) power plant. Welding equipment, airport and base lighting facilities and other electrical units can be handled by the large capacity, in-line generators.

The Tournatow can carry five men in addition to the operator, and can be equipped with a cab for winter operation. The cab is designed for quick removal, being held by four capscrews.


**Since 1880** Tuthill has specialized in designing springs to fit every specific need. Whether your spring requirements are for trucks, buses, automobiles, power shovels, farm wagons or dual and triple axle heavy-duty jobs—Tuthill can meet them quickly and economically. And now, MOLYBDENUM DISULPHIDE ($MoS_2$)... the newest Tuthill extra that keeps springs from *squeaking* and *galling*, is an added Tuthill feature that distinguishes this famous line.





Whatever your spring requirements may be — see Tuthill first!

**TUTHILL SPRING CO.**

760 W. POLK ST.,
CHICAGO 7, ILLINOIS


## Newest Construction Machinery at British Fair

CONSTRUCTION equipment of all kinds will be featured at the Birmingham section of the British Industries Fair to be held in London and Birmingham from April 30 to May 11. More than 70 different types of equipment and machinery will be displayed on a 75,000 sq ft outdoor site.

Goodwin Barsby & Co., Leicester, will exhibit a complete quarry plant on wheels, called the Goliath mobile stone-crushing plant. After blasting it is moved up with the mechanical shovel, thus cutting out intermediate transport. One attendant only is needed in charge of the primary crusher, with another for the engines and general supervision. Output is 40 tons an hour.

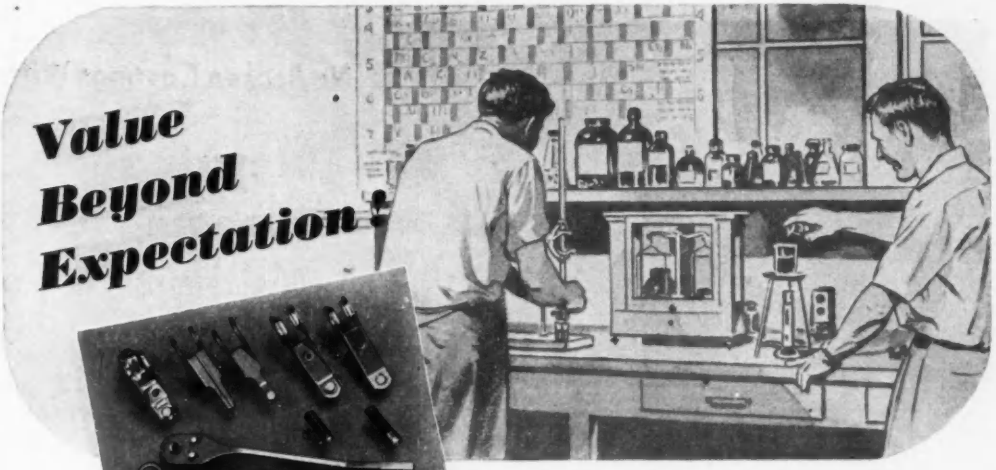
E. Boydell & Co. Ltd., Manchester, will show an entirely new and extremely compact hydraulic loader, known as the Muir-Hill Type LH/1. With a turning circle of only 15 ft, this machine is able to work in confined spaces. Estimated loading rate on normal loose materials is in excess of 20 tons per hour. The chassis is powered by either gasoline or Diesel engines of 35 hp.

A.C.E. Machinery, Ltd., London, has developed a new Diesel-driven mobile platform hoist with power-assisted traction and other exclusive features. Of 1,000 lb capacity with 17 ft and 21 ft lift extensions available, this hoist incorporates 2½ mph power resistant traction.

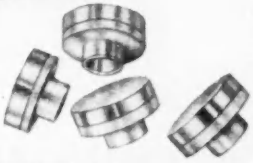
Blaw Knox Ltd., London, is bringing out a new motorized scraper of 15 cu yd capacity, powered by a six cylinder oil engine developing 150 hp. The scraper is of open-top design, cable-operated, with simple reeving and with all ropes clear of the bowl. It weighs approximately 19 tons. The same firm has a new motorized grader, a heavy-duty mechanically-operated machine. Powered by either a six cylinder or a four cylinder engine, it has six forward and two reverse speeds, power operated controls, full revolving circle, and wide blade range. It weighs about 10 tons.

Road Machines Ltd., Middlesex will exhibit mono-rail transporter comprising driverless trucks, with or without trailer, running on a single rail and delivering loads direct to the spot required without a man in control.

John Allen & Sons Ltd., Oxford, will display a tractor-drawn and operated small excavator capable of cutting trenches with a back hoe down to nine ft deep and 24 in. wide, also to excavate with a shovel boom capable of loading up to 14 ft high. Power for the excavator unit is taken by the rear power take-off on the tractor. This equipment was developed for the North American market.





## MALLORY TUNGSTEN CONTACTS

Although all Mallory tungsten is chemically the same, the size, shape and distribution of the grain particles are carefully controlled, since these factors vitally affect its electrical and mechanical properties. Mallory will gladly work with you to find the right contacts to meet your specifications. Write today.

# Mallory Contact Finish *Brings Laboratory Standards To Production Operations*

The Mallory "E-Treat" finish is one of the many ways in which Mallory metallurgical developments are improving performance and reducing costs of electrical contacts.

A typical example is the real help provided by Mallory for a manufacturer of automotive equipment who faced the problem of excessive failures of tungsten contacts. The application involved a critically heavy electrical load with light contact pressure. Mallory contacts with "E-Treat" finish . . . a chemically pure, highly polished face . . . were tested and enthusiastically approved. The "E-Treat" finish afforded lower contact resistance and less material transfer . . . tripled the minimum contact life. What is more, the Mallory contacts *cost less* than those formerly used!

*That's value beyond expectation!*

Mallory contact know-how is at your disposal. What Mallory has done for others can be done for you!

*In Canada, made and sold by Johnson Matthey and Mallory, Ltd., 110 Industry St., Toronto 15, Ontario*

## Electrical Contacts and Contact Assemblies

P. R. MALLORY & CO. Inc.

# MALLORY

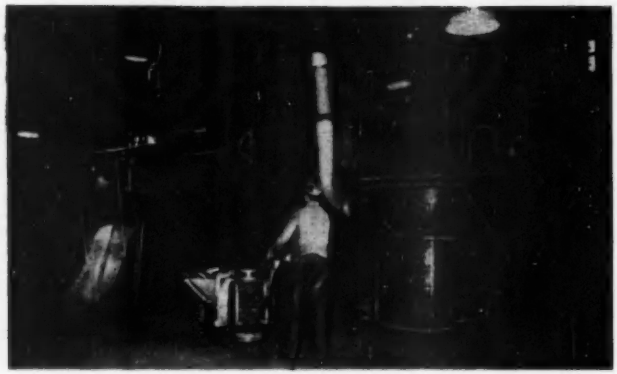
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*Contacts* *Special Metals*
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*Rotoblast rocker-barrel with automatic loader (left), and six-ft CK unit-type dust collector (right).*

## No Broken Castings With

# New Cleaning Method

THE replacement of out-moded cleaning and dust collecting equipment by a modern Rotoblast rocker-barrel, a Rotoblast table, and a unit-type dust collector is saving General Foundries of Milwaukee, Wis., more than $250 a day. This modern jobbing foundry cleans miscellaneous gray iron and alloyed iron castings which are produced for the machinery, automotive, electrical and aircraft industries throughout the Midwest. More than $100 a day is saved in direct labor costs, and $150 a day in breakage, according to the company. Intangible savings resulting from improvements in the quality of the finished product, improved working conditions, and abrasive savings are not included in the $250 saving mentioned.

The equipment manufactured and installed by Pangborn Corp. to achieve these labor and breakage savings is a 6 ft single type LK Rotoblast table with a maximum load of 5000 lb, a 17½ cu ft Rotoblast rocker-barrel which will clean up to 3000 lb in one load, and a type CK 6 ft unit-type dust collector.

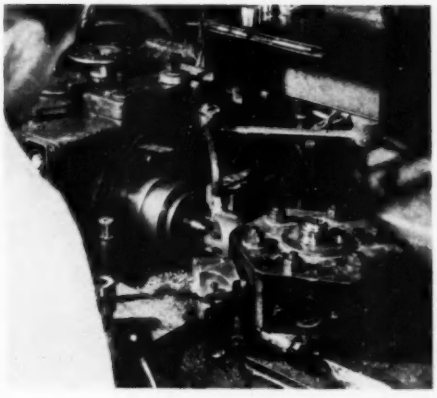
Breakage was an important cost factor because of the handling necessary in airblast room cleaning. One typical medium-sized casting costs approximately $40 to cast. An average of four to five of these castings were broken each day, or $160 to $200 of lost material and time. Breakage has been eliminated by the Rototable cleaning and handling methods.

In addition to direct labor and breakage savings, the

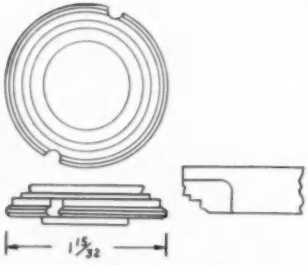
(*Turn to page* 364, *please*)

# Modified Standard Carbide Tool

## Does Intricate Form-Turning Job



*Setup in turret lathe for machining hard bronze washer.*




*These sketches show workpiece and Carboloy tool used.*

FEDERAL-MOGUL CORP.'S Detroit plant is getting high production and excellent finish at low tool cost on this tricky oil seal turning job. Although the contour is intricate, initial tool cost is low due to the use of a standard carbide blank modified to suit the job.

The material is hard bronze and the machine a No. 2 Warner & Swasey turret lathe. The form tool (shown in the drawing) is modified from a standard Style 2000 Carboloy blank. Production per eight-hour shift is 1040 pieces. To maintain the high finish required, the tool is touched up with a diamond hone once a day without removing it from the machine. Although a jump cut is involved in turning the two larger diameters, the carbide tool turns out upwards of 11,000 pieces before it is removed from the machine for sharpening.

# the Automotive Industry looks to BORG-WARNER for

**CREATIVE ENGINEERING**

—to improve existing products

—to develop new products and processes

**VOLUME PRODUCTION**

—to help keep assembly lines moving



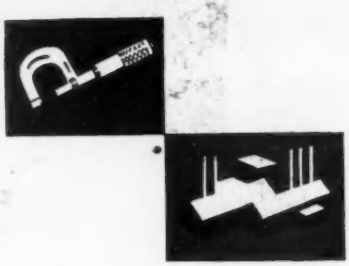
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**Almost every American benefits every day from the 185 products made by BORG-WARNER**

ENGINEERING B-W PRODUCTION

**THESE UNITS FORM BORG-WARNER,** *Executive Offices, Chicago,* BORG & BECK • BORG-WARNER INTERNATIONAL • BORG-WARNER SERVICE PARTS • CALUMET STEEL • DETROIT GEAR • DETROIT VAPOR STOVE • FRANKLIN STEEL • INGERSOLL PRODUCTS • INGERSOLL STEEL • LONG MANUFACTURING • LONG MANUFACTURING CO., LTD. • MARBON • MARVEL-SCHEBLER PRODUCTS • MECHANICS UNIVERSAL JOINT • MORSE CHAIN • MORSE CHAIN CO., LTD. • NORGE • NORGE-HEAT • PESCO PRODUCTS • ROCKFORD CLUTCH • SPRING DIVISION • WARNER AUTOMOTIVE PARTS • WARNER GEAR • WARNER GEAR CO., LTD.



BORG-WARNER was established primarily to serve the Automotive Industry. For 23 years it has been our privilege to work both with you and for you in creative engineering and in production. Your problems have been ours. To the original two Divisions on which Borg-Warner was founded, we have added twenty-two more—seventeen of them for the purpose of serving you more completely.

Borg-Warner creative engineers have earned the confidence of this great industry by the dependable performance of Borg-Warner products. Borg-Warner production facilities have become a great reservoir from which you draw so many automotive parts to help keep your assembly lines moving.

Under the capable leadership of Mr. C. S. Davis, now Chairman of our Board of Directors, this Company achieved world-wide recognition and industrial prestige far beyond the dreams of its founders.

The same basic principles of "sound engineering and economical production" continue to guide us. No Borg-Warner product will ever be offered to the industry until its serviceability and its dependability have been demonstrated.

By our ever-increasing investments in plants and facilities, we share your confidence in the future of America and the "American Way of Life."

To the great Automotive Industry we have been privileged to serve continuously since 1928 we feel a deep sense of obligation.

Roy D. Ingersoll

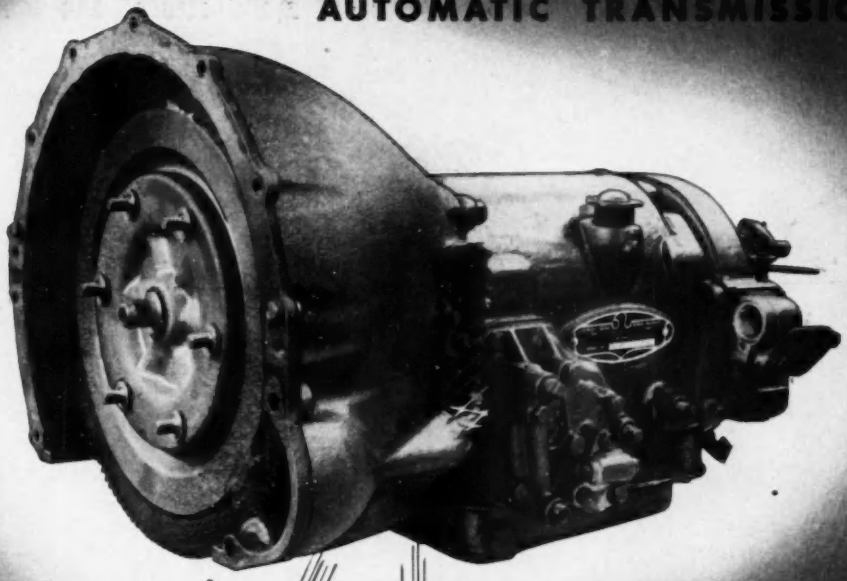
President
BORG-WARNER CORPORATION

ENGINEERING
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**brings you truly**

## AUTOMATIC TRANSMISSION



**without sacrificing any of the dependability of standard or overdrive transmissions**

This simplest, most advanced no-shift drive ever developed gives the motorist .

- **Firm instant response to the power**
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- **No creeping . . . no need to keep foot on the brake**

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*Detroit Gear*

division of *Borg-Warner Corporation* BW detroit 14, michigan

FOR MORE THAN 40 YEARS

a dependable and experienced source for manufacturer and jobber




• AXLE SHAFTS • TRANSMISSION GEARS •

• RINGS AND PINIONS •

• DIFFERENTIAL CASES AND INTERNAL PARTS •

• CYLINDER HEADS •

WARNER AUTOMOTIVE PARTS

division of Borg-Warner Corporation




Auburn, Indiana · Detroit, Michigan

QUIETER OPERATION

SMOOTHER PERFORMANCE

BETTER SERVICE

LONGER LIFE



For more than 35 years the Automotive Industry has found you can always depend on clutches by

# BORG & BECK

*for that vital spot where Power takes hold of the road!*

BORG & BECK Division

THE STANDARD

B-W




# 3 of the REASONS for Equipping YOUR Truck with MECHANICS *Roller Bearing* UNIVERSAL JOINTS

## Use 8 Less Bolts for Assembly

this will save you approximately 12 minutes of assembly time for installing the propeller shaft in your truck.

12 minutes at $1.60 per hour = ..... $.32

## Are 34% Lighter in Weight

on a transport type truck this amounts to 28 pounds. This adds up to 11,200,000 pounds of extra PAYLOAD your truck can carry during its life of 400,000 miles.

5,600 ton miles at $.05 per ton mile = $280.00

## Need 80% Less Down-Time for Servicing

The average truck requires 4 trips to the shop for universal joint replacement parts during its life. Each trip ties up the truck 1-1/5 hours on the average.

80% of 5 hours down-time at $3.00 = $12.00
80% of 5 hours mechanic's time at $2.00 = $8.00

## Total Dollar Value of Equipping Your Truck with Mechanics Universal Joints $300.32

These 3 Dollar Value reasons for equipping YOUR trucks with Mechanic's Universal Joints are but a few of the many competitive advantages our engineers will gladly detail for you.

**MECHANICS UNIVERSAL JOINT DIVISION**

Borg-Warner • 2024 Harrison Ave., Rockford, Ill.

when it comes to



**STAMPINGS** for volume production...

*you can depend on the equipment and experience of . . .*

# Ingersoll PRODUCTS

## DIVISION OF BORG-WARNER

This Borg-Warner Division is servicing some of America's largest automotive producers with these and similar products:

Automobile body stampings . . . tail gate assemblies . . . fenders . . . door assemblies . . . stampings for automatic transmissions . . . clutch covers . . . clutch levers . . . clutch plates . . . tapered discs for truck wheels.

Also, heat treated parts such as stabilizer bars and bumper bar supports.



ENGINEERING B-W PRODUCTION

**Ingersoll PRODUCTS DIVISION**
***Borg-Warner Corporation***
310 South Michigan Avenue • Chicago 4, Illinois
*Plants: Kalamazoo, Mich., Chicago, Ill.*

# CONTROL POWER BETTER



## WHICH CLUTCH?

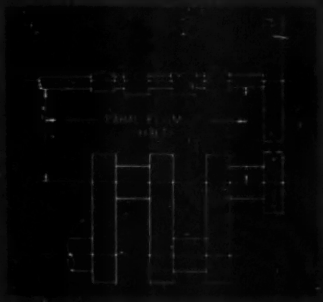
An engineered-to-the-job ROCKFORD CLUTCH application involves recommendations covering the proper type—spring-loaded, over-center, multiple-disc, gear-tooth or splined-to-shaft drive — as well as torque rating, shock-load absorbtion, slippage control, vibration dampening and provision for frequent drive shaft reversals.

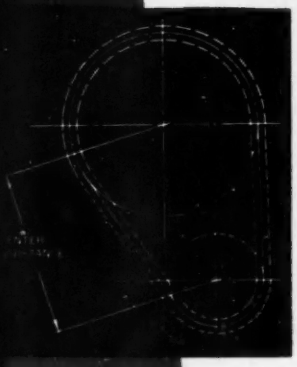
Regardless of your needs, ROCKFORD CLUTCH engineers can specify a size and type clutch that will operate most efficiently in your product — conserving space, power and final cost.

**ROCKFORD CLUTCH DIVISION**
BORG-WARNER
315 Catherine Street, Rockford, Illinois

# ROCKFORD CLUTCHES

Morse Timing Chain Drives assure safe, quiet performance though camshafts and crankshafts are not exactly parallel.





**Morse Timing Chain Drives permit greater engine block tolerances and economical production because of increased center distance tolerance on drive.**

Morse Timing Chain Drives maintain correct and positive timing despite end play of shafts.



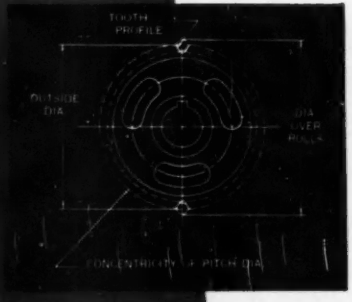
# For finest performance . . .

## Morse Timing Chain Drives

## *plus . . .*

## Morse engineering assistance

Morse Timing Chain Drives permit greater manufacturing tolerances on sprockets, therefore allow the production of a complete drive under the most favorable and economical conditions.




In thirty-six years of close collaboration with automotive engineers, Morse experts have cut down wear, boosted speed and toughness in timing chain drives. Today, the manufacturer who relies on Morse gets the finest timing chain drives available.

To get the maximum from a timing chain drive, every element in your application must be carefully evaluated . . . sprocket-tooth combination, guide position, lubrication methods, chain width, sprocket material, and more. Morse's staff of engineering specialists is available to give you such technical service.

Ask us to review your present timing drive program. Or call us early in the design of a new application. We will be glad to suggest money-saving, time-saving ways of getting perfect performance from Morse Timing Chain Drives. For information, write: Morse Chain Company, Dept. 125, 7601 Central Ave., Detroit 8, Michigan.

**MORSE**

**MECHANICAL *POWER TRANSMISSION* PRODUCTS**

PRODUCTS OF B-W BORG-WARNER

**M=TC** Morse *means* Timing Chains

BW

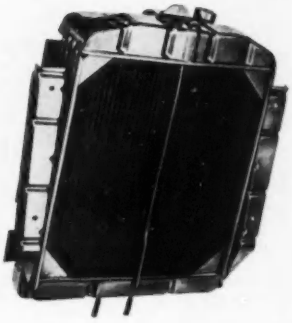
# LONG clutches



Long clutch reputation has been built on quality and dependability . . . sound engineering and specialized manufacturing techniques. Since 1922, the leading makes of cars, trucks, buses and tractors have been equipped with Long clutches. They are available in a wide range of sizes and torque capacities.

# LONG radiators

Whether your radiator application is standard or special, Long engineers will gladly assist you in balancing the system for maximum heat exchange benefits. Long engineering experience spans millions of automotive radiator units installed as original equipment.



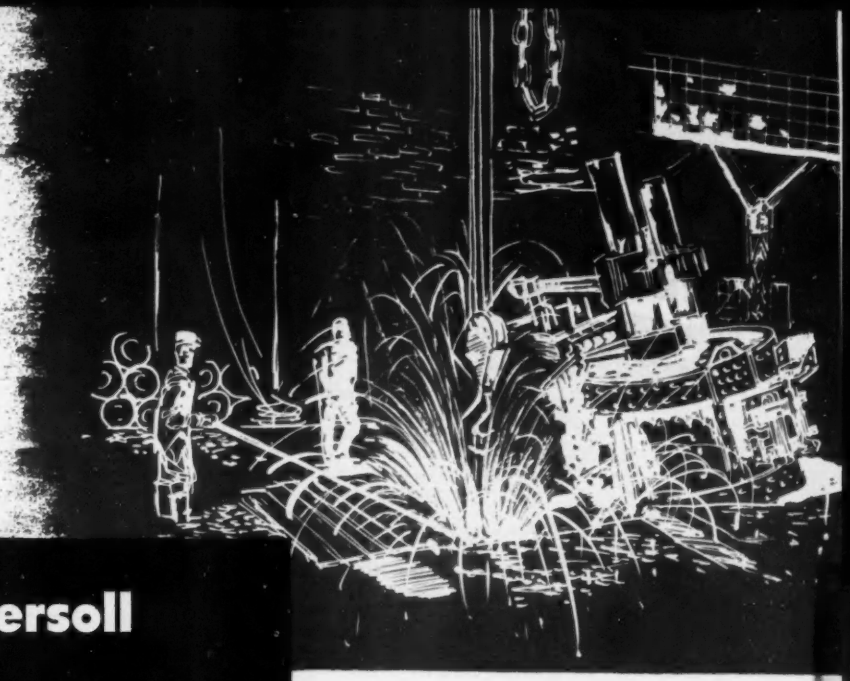
## LONG torque convertors

For your automatic transmission. High performance—with torque multiplication of better than 2 to 1. Low manufacturing cost—fabricated almost entirely from stampings.



LONG

LONG MANUFACTURING DIVISION
BORG-WARNER CORPORATION
DETROIT 12, and WINDSOR, ONTARIO



make **Ingersoll**

your prime source of supply

for **SPECIAL STEELS**

**Alloy Steels**
**Armor Plate**
**Clutch Plate Steels**
**Tillage Steels**
**Soft Center Steel**
**Shovel Steels**
**Knife Steels**
**Saw Steels, including**
**High Speed Hack Saw Blade Steels**
**TEM-CROSS Steel**
**Stainless Steels**
**INGACLAD Stainless-Clad Steel**

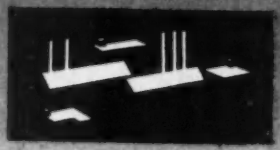
# Ingersoll STEEL DIVISION

***BORG-WARNER CORPORATION***

**New Castle, Indiana**

ENGINEERING BW PRODUCTION

# 19 of the 24 BORG-WARNER DIVISIONS produce for the AUTOMOTIVE INDUSTRY



**BORG & BECK**—Clutches for Passenger Cars, Trucks and Tractors.

**CALUMET STEEL**—Structural Tubing and Special Automotive Jack Bar Steel; Small Angles for Auto Seats; Merchant Bars.

**DETROIT GEAR**—Automatic Transmissions for Passenger Cars; Truck and Bus Transmissions; Gear and Precision Parts for Passenger Cars, Trucks and Aircraft.

**FRANKLIN STEEL**—Structural Tubing and Special Automobile Jack Bar Steel; Spring Steel Bumper Bar Supports; Small Angles for Auto Seats; Merchant Bars.

**INGERSOLL PRODUCTS**—Tapered Steel Discs for Truck Wheels; Automotive Stampings; Seat Frames; Bumper and Stabilizer Bars.

**INGERSOLL STEEL**—Clutch Discs and Specialty Alloy Steels for Automotive use.

**LONG MANUFACTURING**—Clutches and Radiators for Passenger Cars, Trucks, Busses and Tractors; Oil Coolers for the Automotive Industry.

**LONG MANUFACTURING, LTD.**—(Canada). Clutches and Radiators for Passenger Cars, Trucks, Busses and Tractors; Oil Coolers for the Automotive Industry.

**MARBON**—Adhesives for Bonding Rubber and Synthetic Rubber to Metal and other Materials.

**MARVEL-SCHEBLER PRODUCTS**—Carburetors for Automobiles, Trucks, Tractors, Airplanes, Motorcycles, Marine and Industrial Engines.

**MECHANICS UNIVERSAL JOINT**—Universal Joints for Passenger Cars, Trucks and Aircraft.

**MORSE CHAIN**—Automotive Timing Chains and Sprockets.

**MORSE CHAIN, LTD.**—(England). Automotive Timing Chains and Sprockets.

**PESCO PRODUCTS**—Superchargers for Trucks, Busses and Heavy Duty Equipment; Hydraulics for Lift and Dump Trucks.

**ROCKFORD CLUTCH**—Truck, Tractor, Agricultural Implement and Industrial Clutches; Power Take-Offs for Gasoline and Diesel Engines; One-Way (Free Wheeling) Clutches.

**SPRING DIVISION**—Mechanical Precision Springs for the Automotive and Aircraft Industries; High Production Plain and Heat-Treated Stampings; Special Clutch Discs; and Precision Flat and Belleville Springs.

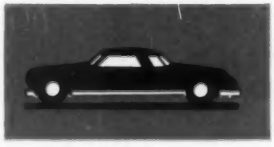
**WARNER AUTOMOTIVE PARTS**—For Replacement Purposes—Ring Gears and Pinions; Differential Cases; Differential Internal Gears and Spiders; Axle Shafts; Cylinder Heads and Cast Iron Parts; Transmission Gears for Passenger Cars, Trucks and Tractors; Power Take-Offs.

**WARNER GEAR**—Automatic Transmissions for Passenger Cars; Standard Transmissions for Cars, Trucks, Busses and Tractors; Overdrive and Free Wheeling Units for Passenger Cars; Synchronizer Units for Passenger Cars and Trucks; Parking Brake Assemblies.

**WARNER GEAR, LTD.**—(Canada). Synchronizer Units.

*Two other Borg-Warner Divisions serve in Automotive Parts Distribution:*
**BORG-WARNER INTERNATIONAL**—Export Sales of Automotive Parts
**BORG-WARNER SERVICE PARTS**—U. S. Distribution of Automotive Service Parts

# 19 of the 20 MAKES OF PASSENGER CARS are equipped with one or more BORG-WARNER PRODUCTS



*Engineering makes it work*
*Production makes it available*

BW

# NEW • PRODUCTION • EQUIPMENT • PLANT •

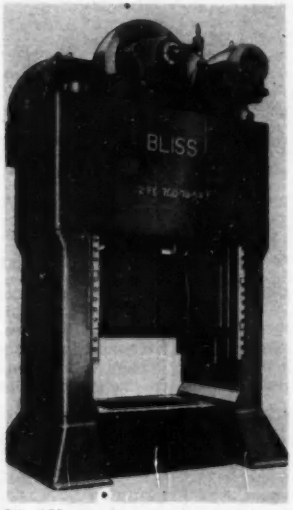
*FOR ADDITIONAL INFORMATION regarding any of these items, please use coupon on PAGE 188*

## B-34—Two-Point Eccentric Presses

A new line of two-point eccentric presses for general-purpose blanking, forming and drawing is brought forward by E. W. Bliss Co., Canton, Ohio. To withstand the most severe round-the-clock operating conditions, the two main gear eccentric units are designed with unusually heavy sections, mounted on and keyed to extremely large diam shafts.

Torsional and axial deflections are practically eliminated by having the shafts revolve in crown bushings. Maximum rigidity is achieved through use of short uprights and deep crown sections.

Lubrication is automatic, consisting of a combination of cascade and pressure types. The drive is double-geared, with two separate intermediate shafts running in oil bath.




*Bliss 2FE press for general purpose blanking, forming and drawing.*

Dimensions and specifications for the new presses are in accord with the standards established by the Joint Industry Committee.

The fast-acting Bliss single-disk pneumatic friction clutch is furnished as standard equipment. This clutch is cool-running and requires no adjustment, since the clutch and brake plates are self-centering and wear on the friction surfaces is compensated automatically. Replacement of worn-out


Perhaps You Too Can Reduce Costs with a...

Lamb Electric special application MOTOR



This small sturdy motor can be readily adapted to a wide range of industrial applications.

A number of companies have found that a Lamb Electric Motor—engineered for their particular application — enabled them to reduce product costs. Other advantages:

**IN THE MOTOR —**

1. Reduced weight, space.
2. Exact mechanical and electrical characteristics.
3. Thorough dependability.

**IN THE PRODUCT —**

4. Better performance.
5. Improved eye-appeal.
6. Compactness, less weight.

Our 35 years' experience, covering practically every type of small motor-driven product, is available to help you obtain these results. *The Lamb Electric Company, Kent, Ohio.*



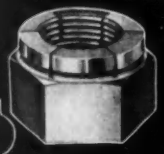
This motor is used extensively on such products as: industrial vacuum cleaners, agitators, sirens, and colloid mills.

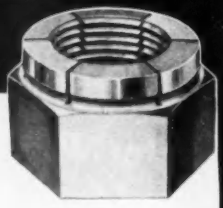
They're Going into America's *Finest* Products

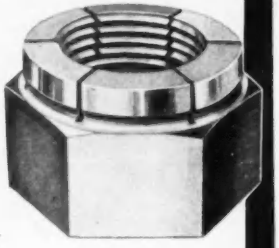
Lamb Electric SPECIAL APPLICATION FRACTIONAL HORSEPOWER MOTORS

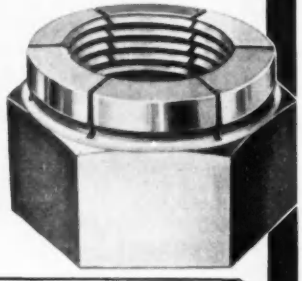
# Why FLEXLOC SELF-LOCKING NUTS











are

## GROWING

in importance...

It's because FLEXLOCs stay tight — simplify assembly, promote uninterrupted production and cut maintenance costs.

FLEXLOCs offer these features: *one-piece, all-metal* construction — nothing to work loose or forget, no serious temperature problems; *resilient, automatic locking sections,* processed by our patented method to provide FLEXLOC's closely controlled torques; and *ample, positive resistance* to the most chattering vibration, even after many applications.

Convince yourself with actual samples! Let us know what size you need and we'll send them promptly, together with our latest FLEXLOC literature.



FLEXLOC Self-Locking Nut, "regular" type.



FLEXLOC Self-Locking Nut, "thin" type.



FLEXLOC Self-Locking Nut, external wrenching type.

SPS STANDARD PRESSED STEEL CO.

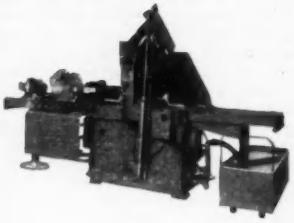
JENKINTOWN 53, PENNSYLVANIA


## NEW PRODUCTION AND PLANT EQUIPMENT

*For additional information please use coupon on page 188*

friction plates is accomplished easily and quickly, without disassembling the clutch, or any part of the press. The brake is integral with the clutch, and arranged to prevent engagement of both at the same time.

### B-35—Rotary-Oscillating Cutting Machine



*Rotary-oscillating-hydraulic type wet abrasive cutting machine, Model 508, placed on the market by the Campbell Machine Division of American Chain & Cable Co., Inc., Bridgeport, Conn. The machine cuts round solid bars up to 8 in. diam and tubing up to 8 in. OD, either ferrous, nonferrous or plastic materials, including corrosion resisting as well as hardened or annealed steel, with a minimum of burr. Temperature of the work is controlled by coolant. The machine is a revolving work bar type with oscillating abrasive cutting wheel, hydraulic wheel feed and hydraulic work clamps.*

### B-36—Double Vertical Spindle Spring Grinder

Charles H. Besley and Co., Beloit, Wis., announces a No. 928-30/60 double verticle spindle disk grinder with semi-automatic cycling, designed for grinding coil springs more quickly and accurately. The machine grinds springs from 1/2 in. to 6 in. long, from 1/4 in. to 4 in. in diam, and from 0.0625 in. to 0.500 in. wire diam. The abrasives grind a variety of spring types as well as materials such as oil tempered steel, music wire, bronze wire, etc., thus avoiding down time for wheel changeover.

The springs pass across the center of 30 in. diam abrasives with no center holes. This eliminates down time for dressing, and abrasive loss resulting from the customary wheel truing operations. The result is that two Besly-Titan Steelbac abrasive disks will produce up to six times the ordinary number of springs, with an average adjustment of only 0.008 in. to compen-

(*Turn to page* 242, *please*)




# FRAM'S 1st in filtration engineering

Whether your engines are in production or on the drawing board . . . whether they are for civilian or military use . . . whether you want to remove contaminants from oil, air, fuel or water . . . Fram will work with you to design and build filters that meet the exact needs of your engines.

Your guarantee of Fram efficiency and performance comes from constant experimenting, testing and proving in modern Fram laboratories and in Fram's new Dust Tunnel at Dexter, Michigan. All these Fram facilities are available to you for determining the exact filtration requirements of your particular engines.

Fram's top-flight engineering staff, laboratories and nation-wide plant facilities are at your disposal . . . standing ever ready to help you solve your filtration problems.

FRAM CORPORATION, Providence 16, R. I.
*In Canada:* J. C. Adams Co., Ltd., Toronto, Ontario.

**FRAM**
**OIL • AIR • FUEL • WATER**
**FILTERS**

*More than 70 leading manufacturers of cars, trucks, tractors, buses and engines are using filters embodying the Fram Principle of Oil Filtration on some or all of their products.*

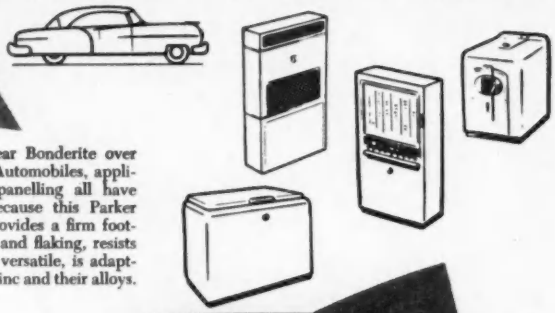
*Manufacturers of...*

FRAM OIL & MOTOR CLEANERS • FRAM FILCRON REPLACEMENT CARTRIDGES • FRAM CEL-PAK REPLACEMENT CARTRIDGES • FRAM FILTRONIC REPLACEMENT CARTRIDGES • FRAM CARBURETOR AIR FILTERS • FRAM GASOLINE FILTERS • FRAM CRANKCASE AIR FILTERS • FRAM POSITIVE CRANKCASE VENTILATORS • FRAM RADIATOR & WATER CLEANERS • FRAM FUEL OIL FILTERS • FRAM INDUSTRIAL OIL AND FUEL FILTERS • FRAM SEPARATOR-FILTER FOR IMMISCIBLE LIQUIDS • FRAM CUSTOM-DESIGNED FILTERS FOR SPECIALIZED APPLICATIONS.

# Parker Products...

## BONDERITE

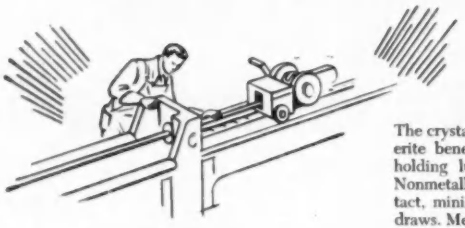
***To anchor paint, preserve fine appearance***



The best looking paint jobs wear Bonderite over the metal and under the paint. Automobiles, appliances, metal furniture, metal panelling all have longer lasting paint finishes because this Parker corrosion resistant paint base provides a firm foothold for paint, prevents peeling and flaking, resists rust and corrosion. Bonderite is versatile, is adaptable for use on steel, aluminum, zinc and their alloys.

## BONDERITE

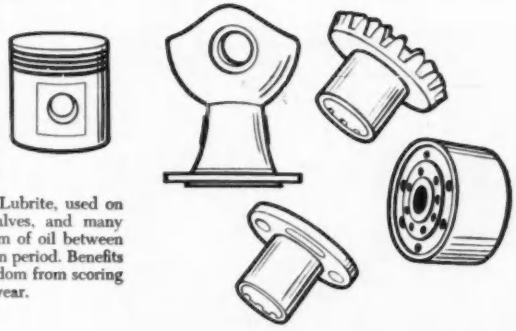
***To make drawing smoother, easier***



The crystalline phosphate coating created by Bonderite benefits drawing and forming operations by holding lubricant even under extreme pressures. Nonmetallic Bonderite prevents metal-to-metal contact, minimizes galling and scoring, allows deeper draws. Metal polishing costs are reduced by treating with Bonderite before forming.

## PARCO LUBRITE

***To resist wear on friction surfaces***

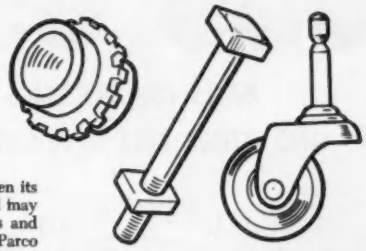


Oil absorbent, nonmetallic Parco Lubrite, used on pistons, cylinder walls, gears, valves, and many other bearing surfaces, holds a film of oil between moving parts in the critical break-in period. Benefits are faster, smoother break-in, freedom from scoring and scuffing, longer subsequent wear.

# for metal treatment and metal finishing

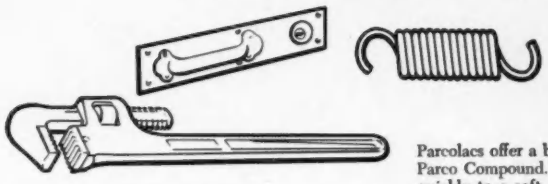
## PARCO COMPOUND

***For effective rust resistance***



For a third of a century, this product has given its protection to iron and steel. Parco Compound may be used on wrought iron, stampings, castings and sheets. It stoutly resists rust and corrosion. Parco Compound is simple to use, easy to control and economical.

***For excellent special finishes***



## PARCOLAC

Parcolacs offer a broad line of finishes for use after Parco Compound. Among them are stains that dry quickly to a soft, matte black which is handsome, long-wearing and easy to handle and apply. Other specialized finish requirements find their answer in Parker Parcolacs.

### PARKER PRODUCTS MEET GOVERNMENT SPECIFICATIONS

| SPECIFICATION | PARKER PRODUCTS |
|---|---|
| JAN-C-490, Grade I | Bonderite 100, 125, 140, 160, 170, 180 |
| JAN-C-490, Grade II | |
| Type 2 | Parco Cleaners 341, 350, 371 |
| Type 4 | Parco Cleaners 250 and 260 |
| Type 5 | Parco Cleaners 210 and 220 |
| Type 6 | Parco Cleaners 100, 101, 110 |
| JAN-L-548 | Parco Compound—Parco Powder |
| U.S.A. 57-0-2 | |
| Type II, Class A and Class A1 | Parco Lubrite 1, 2, 3 |
| Type II, Class B | Parco Compound—Parco Powder |
| Type II, Class C | Bonderite 32, 34, 100, 125, 140, 160, 170, 180 |
| U.S.A. 50-60-1C | Bonderite 100, 125, 160, 170, 180 |
| U.S.A. 3-213 | |
| Type I | Parco Cleaner 250 |
| Type II | Parco Cleaner 260 |
| AXS 1245 | See JAN-C-490 |
| QQ-P-416 Type III | Bonderite 32, 34 |
| Navy Aeronautical M-364 | Parco Compound—Parco Powder |

**PARKER RUST PROOF COMPANY**

2178 E. Milwaukee • Detroit 11, Michigan

### WANT MORE INFORMATION?

**Call or Write Today!**

Parker Rust Proof Company
2178 E. Milwaukee, Detroit 11, Michigan

Please send me complete information on the Parker Products indicated below:

☐ Bonderite ☐ Parco Lubrite ☐ Bonderite as an aid in drawing

☐ Parcolacs ☐ Parco Compound ☐ Gov't. Spec. No. _____

NAME _____

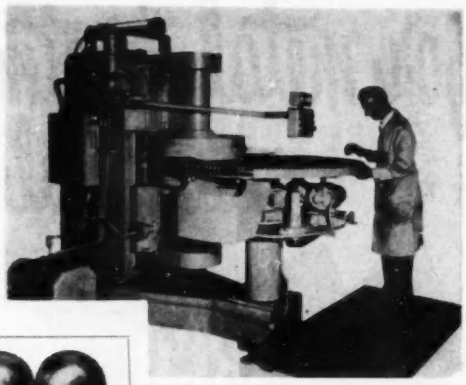
FIRM _____

ADDRESS _____

CITY _____ STATE _____

## NEW PRODUCTION AND PLANT EQUIPMENT

*For additional information please use coupon on page 188*



*Besley double vertical spindle spring grinder, No. 928-30/60. Especially for short runs, the tube clamping method gives the grinder more flexibility. No problem is presented in assembly of a group of tubes, and clamping them in the feed wheel openings.*

(*Continued from page* 238)

sate for wheel wear for each hr of operation.

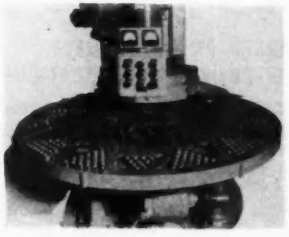
Handling time and floor space for work storage between passes are conserved because this machine produces finished springs during each cycle. Formerly, two or three passes were needed with conventional grinding equipment.

The new method also tends to obviate the need for secondary operations such as reaming or chamfering, squaring and scale testing. Abrasives and metal do not fuse around the end coils, there being an absence of heat during the grinding. Therefore the end coils do not run oversize as a result of metal flow.

In the grinding cycle the operator loads the slowly rotating feedwheel which is driven by a fluid motor. The speed of the feedwheel is variable from 1/6 rpm to 19 rpm to suit operating conditions.

After loading, the feedwheel rotation is increased to grinding speed and the down feed of the top head is started by push button control. There is said to be little occasion for burn, as the feedwheel rotates at a speed that allows the abrasive to remove only a few thousandths of stock each pass.

When the required size is reached, a limit switch stops the downward travel of the head and a flashing amber light shows the operator that the grinding cycle is in the dwell or spark-out period. This period at the conclusion of the grind gives the springs a good finish and brings them to uniform size.



*Feeding the head down during grind permits a finished operation with each loading. Note handy compact push-button control panel directly in front of operator.*

A traverse control button quickly

(*Turn to page* 246, *please*)


**BALLS FOR BEARINGS AND OTHER BALL APPLICATIONS**

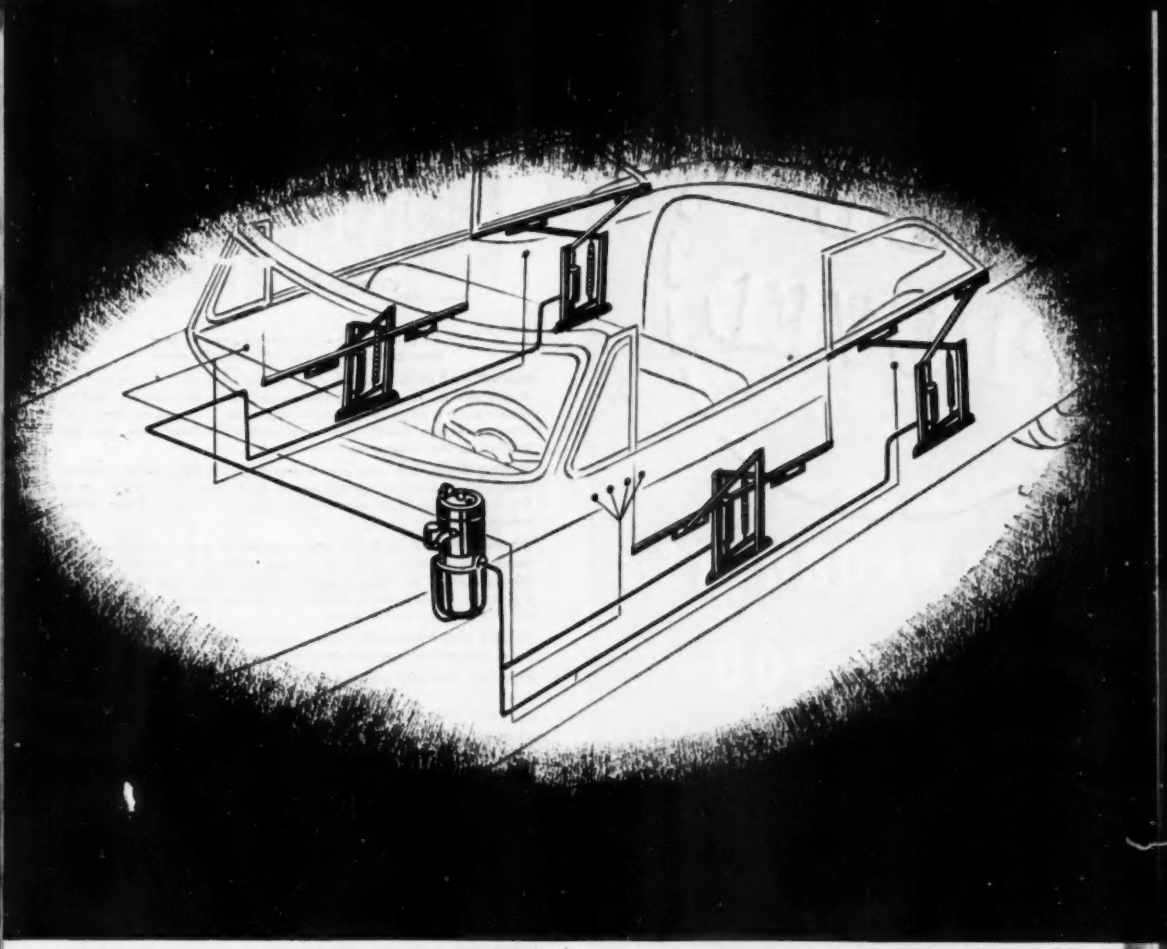
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Precision balls made for your job — available in a variety of materials. Your specifications will receive prompt attention in our Engineering Department. We are thoroughly experienced in supplying the automotive industry with special bearings, retainers and balls. Let us give you our recommendations.

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Many years of "on-the-job" usage in hundreds of thousands of cars have resulted in improvements which make Hydro-Lectric the outstanding system in use today.

The name Hydro-Lectric means leadership and specific betterments in its field for the automotive industry.

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# SUN PRODUCTS OFFER YOU "JOB PROVED" PERFORMANCE

Sun's wide selection of "Job Proved" petroleum products, plus the vast experience of Sun Engineers, can help you cut costs, step up production, and improve quality. Every Sun product, after its development in the laboratory, must pass rigid and exhaustive tests in actual use. When the worth of the product has been completely demonstrated in this way, then—and then only—it is given the "Job Proved" stamp and offered for sale. Detailed product information and the help of Sun Engineers are yours for the asking. Call your local Sun Office.

**SUN OIL COMPANY**
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## INDUSTRIAL OILS




Original charge of Sunvis as good as new after three years' use in hydraulic press.

**SUNVIS 900 OILS**—Unexcelled for turbine lubrication, for use as a hydraulic medium, for circulating systems and similar applications requiring longest possible oil life, plus maximum protection to equipment. Sunvis 900 Oils have a high viscosity index and uniform 0°F. pour point, and are fortified against corrosion and oxidation.

**SUNVIS OILS**—Give long, trouble-free service in all types of industrial reservoirs and circulating systems operating at normal temperatures. Sunvis Oils have uniform high viscosity index, low pour point, and low carbon content.

**SUNVIS H.D. 700 OILS**—For internal combustion engines operating under heavy-duty conditions, or where hydraulic valve-lifters are used; for circulating systems and other industrial applications where contamination is a factor. The additives in Sunvis H.D. 700 Oils supply detergency, and minimize oxidation and corrosion.

**SUNVIS 800 OILS**—Special heavy-duty lubricating oils used in railroad diesel engines equipped with silver-alloy bearings.

**SUNVIS 2200 AND SUNVIS 2300**—Heavy-Duty Supplement #1 and Supplement #2 quality oils respectively. For use in diesel engines where high-sulfur fuels may be encountered.

**DYNAVIS OILS**—For internal combustion engines operating at moderate loads and speeds. These low-pour-point, high-viscosity-index, inhibited oils help prevent formation of harmful corrosive and sludge-forming acids.

**CIRCO OILS**—Straight mineral oils for general lubrication of industrial machinery. Unsurpassed for once-through applications, regardless of operating temperatures.

**SUNTAC OILS**—Recommended for general lubrication of all machines subjected to sudden shocks and load reversals. Compounded to increase adhesiveness, Suntac Oils cling to bearing surfaces and supply constant, superior lubrication.

**STEAM CYLINDER OILS**—Lubricants of high flash and fire point for saturated or superheated steam conditions and for worm gear speed-reduction units.

**SUNOCO WAY LUBRICANT**—Eliminates "stick-slip" of tables and scoring of ways. Noncorrosive, with outstanding metal-wetting and adhesive properties, ample viscosity and E.P. qualities. Approved by 36 leading machine tool manufacturers.

**ROCK DRILL OIL**—High-film-strength oil for use in jackhammers, stopers, drifters, and similar equipment.

## INDUSTRIAL GREASES




Sun grease increases steel mill production by cutting bearing failures 92%.

**SUN GUN GREASES**—Smooth greases made with medium-viscosity oil. Stable under pressure in power and booster guns.

**"JOB PROVED" IN EVERY INDUSTRY** **SUN**

**SUN ADHESIVE PRESSURE GREASES**—Won't drip or splash. Excellent lubricants for open-gear applications.

**SUN DARK PRESSURE-SYSTEM GREASES**—For power-driven central grease lubricating systems in heavy industries. Also used as "medium cup greases."

**SUN MINE CAR GREASES**—Available in several grades. Suitable for both antifriction bearings and plain-bearing cavity-type wheels.

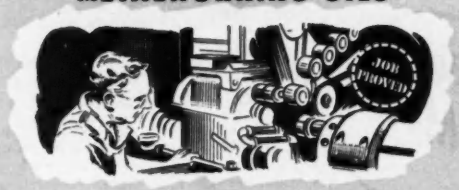
**SUN MINING MACHINE LUBRICANT**—Semifluid. For use where a light but adhesive grease is required. Resists separation and decomposition.

**SUN ROLLER BEARING GREASES**—For use on electric motors and generators and high-temperature machinery equipped with ball or roller bearings.

**SUN GEAR COMPOUNDS**—Black adhesive open-gear compounds and wire-cable greases. Recommended for power presses, mining machinery, worm reduction units, crushers, pump gears, etc.

**SUNOCO TRACTOR ROLLER COMPOUND**—For crawler-type tractors. Provides good lubrication with exceptional sealing qualities.

## METALWORKING OILS




Ball bearing manufacturer finds that Sunicut increases tool life 15%, eliminates sludging.

**SUNICUT**—Straight (non-emulsifiable) transparent cutting oils. Various grades for automatic screw machines and heavy-duty machining operations. Permit high speed production with excellent finishes, long tool life.

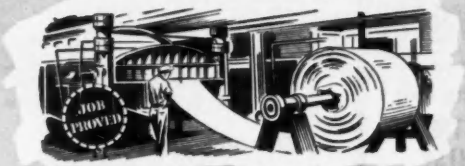
**SUNOCO EMULSIFYING CUTTING OIL**—An emulsifiable oil which produces a stable white emulsion. Efficient and economical cooling and lubricating medium for turning, milling, drilling, and other metalworking operations on both ferrous and nonferrous metals. It is also an excellent grinding coolant. Available in heavy-duty grades too.

**SUN QUENCHING OILS**—Specially refined oils designed to aid development of maximum physical properties in a wide variety of steels.

**SUN TEMPERING OILS**—Specially refined oils for tempering steel. Because of their low carbon content and stability under heat, these oils have an unusually long service life.

**SUN ROLLING OILS**—Straight and emulsifying oils which will permit maximum production in rolling steel, aluminum, brass, and copper.

## RUBBER-PROCESS AIDS




Two Sun rubber-process aids save manufacturer $6,000 a year by taking the place of five competitive products.

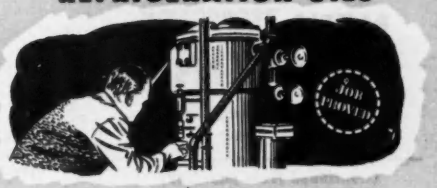
**CIRCOSOL-2XH**—An plasticizer and process aid for natural rubber and especially for GR-S. Outstanding for sponge rubber.

**CIRCO LIGHT PROCESS-AID**—A processing agent and excellent softener for natural rubber, natural rubber reclaims, and neoprene synthetic rubber. Used for GR-S to some extent.

**SUNDEX-53**—An inexpensive product suitable for processing GR-S and blends of GR-S and natural rubber. An established process aid for rubber footwear stocks and sealboard rubbers.

**CIRCOMAR-5AA**—A dark-colored product for processing natural and GR-S rubber used in tire-making. Also used in reclaiming natural-rubber scrap. Replaces asphalt fluxes. Free-flowing at room temperature.

## REFRIGERATION OILS




Hotel turns to Sunisо for its ice-making equipment; eliminates separation troubles, cuts oil costs 20%.

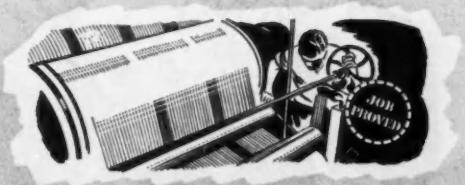
**SUNISO REFRIGERATION OILS**—High-quality oils having extremely low pour points, extremely low wax-separating characteristics, a high degree of stability, and long life. Initially neutral and resistant to formation of detrimental acids. Sunisо grades are available to meet all low, normal, and high temperature conditions. The most widely used oils in refrigerating and air-conditioning.

## SUNOCO WAXES

Waxes, "tailor made" to provide the exact properties demanded by different industries, are now available from Sun's new multimillion-dollar wax plant. Revolutionary manufacturing methods make it possible to retain only the wax portions desired for a particular use, while discarding those which might be detrimental.

Sunoco Waxes are precision-controlled for quality and uniformity of all physical and chemical characteristics important to the user. The various grades of Sunoco Wax are recommended on the basis of their ability to give superior performance on the specific job.

## TEXTILE OILS




Sunotex replaces three formula components in textile mill; also saves 25% on costs.

**SUNOTEX TEXTILE-PROCESS AIDS**—Designed to impart desired additional properties to various fibers during their processing from the raw state into a manufactured product. All Sunotex textile-process aids are emulsifiable in water. Highest rating in Fade-Ometer tests.

**SUN COTTON CONDITIONERS**—Processing materials which prevent waste by cutting down excessive amounts of fly (fine air-borne lint particles).

**SUN ASBESTOS FIBER CONDITIONER**—Sprayed on asbestos during processing to keep fibers from being damaged or broken down. Harmful dust is minimized when this product is used.

**SUN CORDAGE OILS**—Generally used alone, but adaptable to various formulas used by cordage manufacturers. Selected products, highly compatible with additives.

**SUNOTEX MACHINE OIL**—One lubricant for nearly every kind of textile machine. A high-quality mineral oil and additive combination which prevents rust, clings to moving parts, and minimizes wear. Spares cut of all kinds of fabrics easily and completely.

## ADDITIONAL INDUSTRIAL PRODUCTS

**SUN SOLVENTS**—Sun Spirits for the thinning of paints, varnishes, and enamels, for metal-cleaning, and certain types of processing and extraction . . . a pure, water-white petroleum solvent free of corrosive sulfur. Other Sun solvents with special properties are available for the chemical industry.

**SUN LEATHER OILS**—Petroleum-base leather oils. Used for obtaining the desired tensile strength, proper temper, and controlled moisture content. Maintain a light even color, mix well, and distribute evenly.

# INDUSTRIAL PRODUCTS

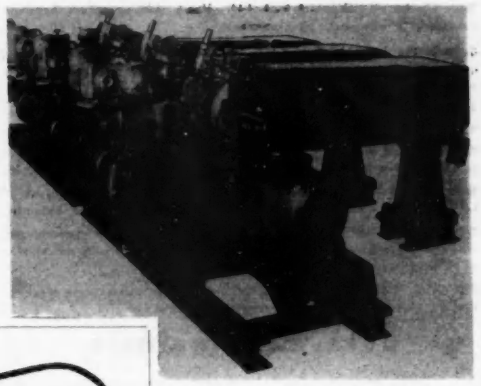
SUNOCO

# NEW PRODUCTION AND PLANT EQUIPMENT

*For additional information please use coupon on page 188*

(*Continued from page* 242)

returns the head to its top limit. The grinding cycle is than complete, the feedwheel is stopped, the hinged unloading panel is dropped and the feedwheel is slowly rotated to unload the springs by gravity.



*Production Machine Co. high speed centerless polishing machine, type 101.*

"Tulite"—the first two-filament headlight lamp for city and country driving.

AND IT HAS THOSE NEW TUNG-SOL 'TULITE' LAMPS



Touring cars with high tonneaus and gleaming brass radiators were the latest in automotive styling when the TUNG-SOL "Tulite" was first introduced. Then, as now, TUNG-SOL Lamps were made under the strict manufacturing policy, "make the best that can be made."

Today, TUNG-SOL'S "Quality Control" Department makes this policy a mathematical certainty, in the manufacture of an up-to-date line of automotive lamps. Entirely independent of manufacturing, Quality Control employs modern statistical methods to make certain that every all-glass sealed beam headlamp and every miniature lamp conforms to the light output specifications—the life standards—and the production requirements of the automotive industry.

TUNG-SOL LAMP WORKS INC., Newark 4, N. J., Sales Offices: Atlanta, Chicago, Dallas, Denver, Detroit, Los Angeles, Newark, Philadelphia.

NEW 1914 MODEL

Complete with ELECTRIC LIGHTS!

Five plants devoted to the engineering and manufacturing of electron tubes, signal flashers, auto lamps—and nothing else.




BRIGHTER LIGHT FOR BETTER SIGHT FOR SAFER DRIVING

## B-37—Centerless Polishing Machine

Shown for the first time at the Chicago Metal Show by Production Machine Co., Greenfield, Mass., a tandem installation of high speed centerless polishing machines was demonstrated on welded steel tubing at 70 lineal ft per minute. These machines it is declared will produce nearly any desired finish, if a sufficient number of machines are used in the installation. High speed model, type 101, has a completely new work feeding unit and motorized variable speed feed drive assembly. Adjustments permit feeding speeds upward of 70 fpm. Changes in design include a large wheel spindle with capacity for contact wheel or buffs up to 6 in. wide

Because of the high speed of operation and the fact that most tube polishing operations require several passes, these machines are usually installed in tandems of from two to six units. Illustrated is a typical installation of four machines, the first three equipped with idler backstands and the fourth machine arranged to use a buff for final operation. Adjustable roller fixtures are provided to support the work as it automatically passes from each machine to final buffing operation.

## B-38—Universal Thread And Worm Grinder

Introduced by the Cosa Corp., New York, N. Y., national representatives for Reishauer Tool Works, Ltd. Zurich, Switzerland, is a Reishauer Type NRK universal thread and worm grinder, for both production and tool room operation. With attachments it grinds internal threads up to 5 in. diam and relief-grinds external threads—right or left hand—single or multiple, to any profile.

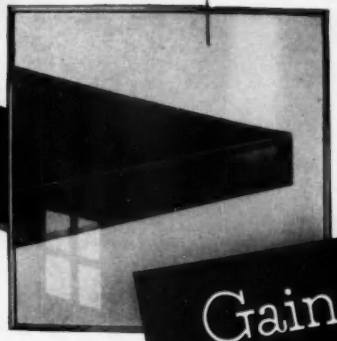
The NRK operates on two basically different grinding methods: The longitudinal feed principle for single thread grinding wheels; and, the in-feed or plunge cut principle for multi-thread

(*Turn to page* 249, *please*)



where **copper's** face value counts

and **steel's** strength and economy are needed . . .



## Gain both

with

# SuVeneer

## COPPER CLAD METAL

SuVeneer Clad Metal gives you copper bonded inseparably to plain steel strip, on one or both sides . . . providing the advantage of all-copper surfaces, while saving solid copper for defense needs. Your costs are lower with SuVeneer Clad Metal, wherever it can take the place of solid copper . . . and your product performance is increased with the added strength of steel!

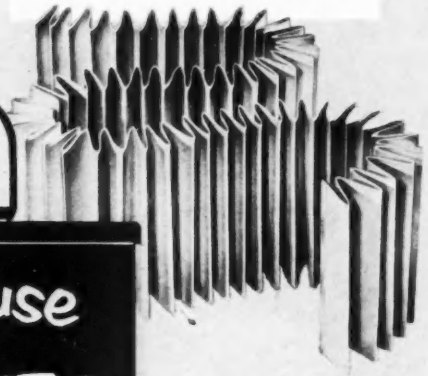
Write to our Sales Department for fuller information on SuVeneer Clad Metal, and any assistance you may desire in developing projected applications. No obligation of any kind.

**Superior Steel**
CORPORATION
CARNEGIE, PENNSYLVANIA

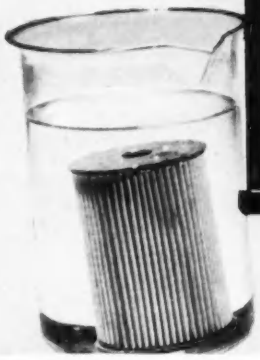
**MORE "TRAP!"** Provides a unit that holds back 290% more dirt and abrasives than the average of 10 other filters tested. Note: A Purolator Micronic* traps particles measured in microns (.000039").



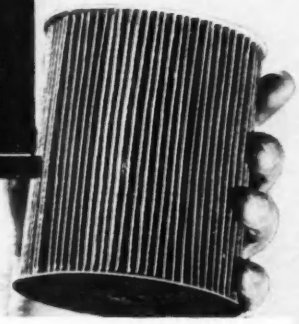
**MORE FILTER AREA!** Provides a unit with up to 10 times the area of other filters of comparable size. Another reason why a Purolator filters more abrasives *faster!*



# Because PUROLATOR Gives MORE!



**EXTRA FILTER LIFE.** A Purolator* Micronic unit left 300 hours in water will show no signs of warping, distorting or disintegrating. In the engine this means longer life, with no "fall-off" throughout effective life.



**EXTRA OIL PROTECTION.** Purolators trap dirt and sludge . . . leaves *in* important additives many other oil filters take *out*. Motor oils retain their in-built characteristics when the filter is Purolator Micronic.




**Because PUROLATOR . . .** *and Purolator alone* . . . offers all 4 advantages in one compact unit, more and more engines are Purolator-equipped at the factory.

Consult with Purolator's engineering staff—whatever your filtering problem. Complete technical data available upon request.

*Reg. U. S. Pat. Off.

PUROLATOR
MICRONIC OIL FILTER
"FIRST IN THE FIELD OF FILTERING"

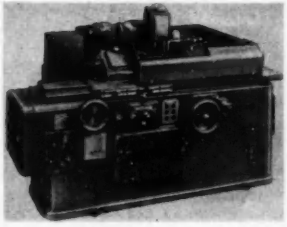
**PUROLATOR PRODUCTS, INC., Rahway, New Jersey, and Toronto, Ontario, Canada**
**Factory branch offices: Chicago, Detroit, Los Angeles**

## NEW PRODUCTION AND PLANT EQUIPMENT

*For additional information please use coupon on page 188*

(*Continued from page* 246)

grinding wheels. The longitudinal feed method is used mostly for grinding thread gauges, spindles, worms and long thread taps, and when the length of the thread is more than 1.575 in. The in-feed method is for production grinding of small thread taps, thread



*Reishauer universal thread and worm grinder, Type NRK.*

milling cutters, thread chasers and threads on screws, bolts or similar parts requiring ground finishes.

The grinder admits work pieces between centers up to 28 in.; grinds threads to a maximum length of 17½ in.—from 0.120 in. to 8 in. thread diam, with a pitch range from 60 tpi to 3 in. The single thread grinding wheel is 0.32 in. wide, while the multi-thread wheels are 0.8 in., 1.2 in., and 1.6 in. The grinding wheel speeds are 1550 or 1900 rpm and the work spindle speeds range from 1.6 to 80 rpm. The grinder operates on 220 and 440 volts, 3 phase, 60 cycle current.

### B-39—Attachments for Lapping Machines

Introduced by the Crane Packing Co., Ill., are two special standard attachments for the Lapmaster—the "roller bar" and pneumatic lifts—for bringing a wider range of work to the point of practicability in lapping.

In the Lapmaster principle of operation, parts are held inside inexpensive micarta workholders which fit into conditioning rings. These rings float on the lapping plate, and revolve on their own axis from the action of the rotating lap plate. Their function is to hold the work, and at the same time, continually condition the lap plate during machine operation — thus completely eliminating down time for dressing of the plate surface. Properly engineered compound-vehicle mixture is continu-


Now Available

NEW CLASS H* MOTORS PROTECTED BY DOW CORNING SILICONES

. . . the insulation that has already saved industry millions of maintenance dollars plus the hourly output of hundreds of thousands of men!

This most timely announcement caps the test program we started 8 years ago when silicone resins were introduced by Dow Corning Corporation. First we proved by accelerated life testing that silicone insulated motors had a good 10 to 1 advantage in life expectancy and wet insulation resistance. Then we sold silicone (Class H) insulation to the manufacturers of electrical equipment ranging from lift truck and traction motors to solenoid and brake coils. We also encouraged the better rewind shops to rebuild hard working industrial motors with Class H insulation.

Now we can proudly refer American industry to this goodly list of electrical manufacturers, all able and willing to supply electric machines protected by Class H insulation made with Dow Corning Silicones.

Take your special problems to the application engineer representing any of these companies or to our Product Development Engineers.

furnished by:

ALLIS-CHALMERS MANUFACTURING COMPANY
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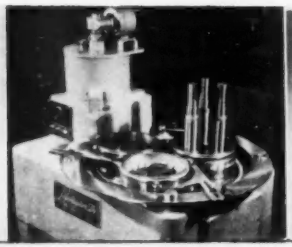
* "Class H" insulation is the kind of insulation that keeps motors running in spite of "Hell and High water." (*slanguage dictionary*)

DOW CORNING CORPORATION
MIDLAND, MICHIGAN
DOW CORNING SILICONES

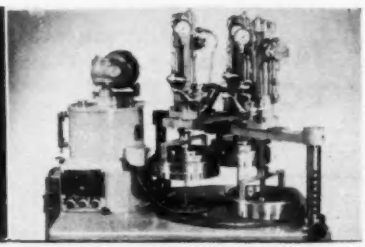
Atlanta • Chicago • Cleveland • Dallas • Los Angeles • New York • Washington, D. C.
In Canada: Fiberglas Canada Ltd., Toronto • In Great Britain: Midland Silicones, Ltd.



*Crane standard Lapmaster provides automatic conditioning of the lapping plate by means of conditioning rings adjusted by overhead spider-bar arrangement.*



*Crane standard Lapmaster, equipped with new roller attachment for retaining and adjusting the conditioning rings, allows the lapping of high parts.*



*Crane standard Lapmaster, equipped with new pneumatic lifts for raise-lower of conditioning ring-pressure plate units, speeds up load-unload of relatively small parts.*


# PRECISION PARTS

As long time manufacturers of jig bushings and components for diesel engine parts, cam rollers, etc., we are equipped to produce a wide variety of similarly related precision parts • Our facilities include automatic blanking, heat treating, centerless and cylindrical internal and external grinding, a variety of honing and lapping machinery — and the most modern types of precision inspection equipment • Our Engineers are well versed in the processing of correct steels for specific applications — making due allowance for shock resistance and wear and abrasion — as well as for cost.



Hardened Roller



Precision Paper Slitter



Special Bushing for diamond dressing attachment



Hardened punch holder Bushing



Diesel piston pin



Aircraft Plunger Assembly

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DALLAS, TEXAS The Stanco Co.


ously agitated in a mixing tank, and flows automatically to the plate throughout the lapping cycle.

In the standard Lapmaster models, the conditioning rings are adjusted to maintain flatness of the plate by means of an overhead "spider-bar" arrangement, shown in left illustration. This allows sufficient clearance for easy and rapid loading and unloading of the work.

The "roller-bar" attachment illustrated (center) is designed primarily to facilitate loading and unloading of tall or large parts. Instead of the overhead spider bar, it makes use of brackets mounted outside the circumference of the lap plate. Elongated slots allow adjustment of these conditioning ring holding brackets. Complete accessibility of the lap plate is afforded—height of parts is unlimited and, in most cases, large heavy castings lap of their own weight.

When large numbers of small parts must be lapped, the pneumatic lift attachment illustrated at right speeds production by facilitating loading and and removal of parts and workholders. Each conditioning ring and pressure plate unit is individually raised by a pneumatic lift. When the automatic lapping cycle stops, each lift is quickly raised by pneumatic pressure, lapped parts removed, and preloaded workholders placed in position—all with a minimum of time. The pneumatic lift is declared to eliminate more than 2/3 the handling costs when large numbers of parts must be lapped.

## B-40—Special Machine For Transmission Cases

One of the longest special machine tools reported ever built has been delivered to a large automotive supplier by the Cross Co., Detroit, Mich.—a 90 ft. Transfer-matic—Cross' name for its line of special machine tools equipped with automasic devices to transfer parts from station to station. The machine drills, mills and taps automatic transmission cases, performing 104 operations on 86 pieces per hr at 100 per cent efficiency.

The machine has 54 stations—1 loading, 6 milling, 23 drilling, reaming and




Now, more than ever before, America must make full use of its steel-making capacity and conserve its natural resources. Now, more than ever, there is national significance in the phrases, "*Make a ton of sheet steel go farther*" and "*Make your product last longer.*"

These low-alloy, high-tensile steels do "make a ton of sheet steel go farther"—for their inherently higher strength is 50% greater than mild carbon steel. That means, in turn, that 25% less section can be used with safety, and where rigidity is important, this can usually be compensated for through slight design change.

"Make your product last longer" is no idle claim. The much greater resistance of N-A-X HIGH-TENSILE to corrosion, abrasion, and fatigue assures longer lasting products even at reduced thickness.

Explore the potential economies to be derived from the use of low-alloy, high-strength steels—and then specify them. Their use can add materially to our national conservation program.

**GREAT LAKES STEEL CORPORATION**

**N-A-X Alloy Division, Ecorse, Detroit 29, Michigan**

**NATIONAL STEEL CORPORATION**



# Alodine®

## BONDS PAINT TO ALUMINUM AND PROTECTS THE METAL

### EASY TO USE
Process is foolproof and chemical solution can be applied by dipping, spraying, brushing or flow-coating.

### ELECTROLESS
Alodizing is a chemical conversion process.

### ECONOMICAL
Low chemical cost, short coating time and low temperature keep overhead down.

### EFFECTIVE
The tough, durable Alodized surface makes paint stick to aluminum and resists corrosion. "Alodine" meets these Service specifications: MIL-C-5541; MIL-S-5002; AN-E-19; AN-F-20.

## Brush Alodine®

Brush "Alodine" is easily and quickly applied to assembled aircraft in the field, shop, or hangar. Cleaning and coating chemicals for Brush Alodizing are shipped in bulk or in the convenient Brush "Alodine" Chemical Kit No. 1. This Kit contains enough chemicals to treat about 1000 square feet of surface and is an ideal package for use at airfields of commercial airlines or of the Armed Services anywhere.

**Use "Alodine" and Alodized Aluminum for Maximum Product and Finish Durability!**

STANDARD RUST PROOFING PRACTICE THE WORLD AROUND
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AMBLER, PA.

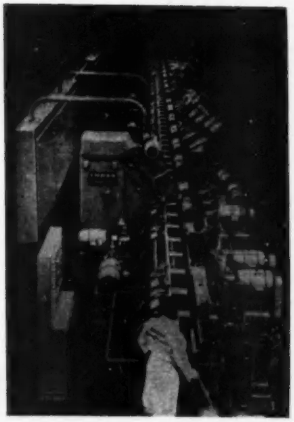
*Manufacturers of METALLURGICAL, AGRICULTURAL and PHARMACEUTICAL CHEMICALS*

# NEW PRODUCTION AND PLANT EQUIPMENT

*For additional information please use coupon on page 188*

counter-boring, 2 tapping 21 inspection, 1 unloading. In normal operation, it takes one transmission case almost an hr to progress through all stations. Only one unskilled operator is required to load and control the operations.

Incorporated in the equipment is the Cross Machine Control Unit with Toolometer which automatically stops the machine when any tool requires



*Cross special machine for operations on automatic transmission cases*

changing. Readily available pre-set tools reduce downtime.

Other features include hardened and ground ways, hydraulic feeds, automatic chip conveyors and use of standard units to facilitate maintenance and provide flexibility for part design changes.

## B-41—New Line of Electric Hoists

Wright Hoist Division of American Chain & Cable Co., Inc., Bridgeport, Conn., announce their line of new "Frame B" Wright Speedway electric hoists, in capacities from 250 lbs to 1000 lbs. Hoists are basically the same as the Wright Frame 1 Speedway electric hoists, but have shorter, deeper drum and are therefore lighter and better balanced. As the highest capacity offered is 1000 lbs, these hoists use two parts of 3/16 in. Trulay cable, a smaller load hook and a smaller trolley. Hoists have shaved gears and the lower limit switch is standard equipment.

(*Turn to page 264, please*)

# we're up to our necks in a paradox!



Prior to the introduction of M-12 and Amendments we urged you to use Revere Copper and Copper Base Alloys for parts used in your automobiles, trucks, tractors and buses. Now, with some of those parts on the "can't-make-of-copper" list and others bound to be in short supply due to D. O. rated orders taking priority over civilian uses, we will be unable to furnish the quantities you want and as fast as you would like to have them. However, we still want to plug the merits of Revere Copper and Copper Base Alloys, so that once they are again available in the desired quantities, you will again use them. A paradoxical situation. But paradox or no, we can still be of help to you with problems which present conditions will create. Our Technical Advisory Service has helped automotive manufacturers and their suppliers make less metal do more; and with equal efficiency. This had been made possible through such things as: the use of a different alloy, a change in gage, redesign of a part or a change in production technique. This knowledge, gained through 150 years of experience in working with metals, can also prove useful in your D. O. work which is bound to bring you new headaches. Why not put this knowledge to work on your problems by contacting the Revere Office nearest you, today?

**REVERE** 150TH YEAR OF SERVICE TO AMERICA

**COPPER AND BRASS INCORPORATED**

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**SEE "MEET THE PRESS" ON NBC TELEVISION EVERY SUNDAY**

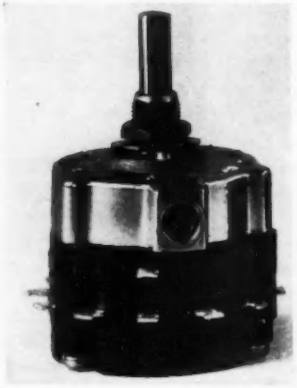
# NEW PRODUCTS

*FOR ADDITIONAL INFORMATION regarding any of these items, please use coupon on PAGE 188*

## C-75—Rotary Selector Switch

For use in instrument circuits, a rotary selector switch produced by Leeds & Northrup Co., Phila., Pa., has solid silver contacts and totally enclosed construction. Contact resistance is about 0.001 ohm, and changes less than 0.0005 ohm on life tests of 10 million operations.

Stationary contacts are made of solid silver, with no plating to wear off. Brushes are multiple-leaf, self-aligning, made of durable silver alloy. Thermal emf when switch is operated at normal speed is less than one micro-volt—making the switch suitable for low-level circuits.



*Leeds & Northrup rotary selector switch*

Electrical strays are said to be exceptionally low. Maximum inductance is less than 0.03 microhenry, and capacitance between segments is less than 0.5 micro-microfarads. Insulation withstands 500 volts rms between segments and from segments to ground.

Current interrupting capacity, tested for 100,000 operations, is one amp at 110 volts, 60 cycles on resistance load. Contacts carry continuous current of 5 amps.

Adjustable detent permits variation of switching torque. Switch is a shorting type, and is designed for 2-hole panel mounting per JAN and RMA standards. Various switching combinations are supplied, from single-pole 12-position to 6-pole 12-position.

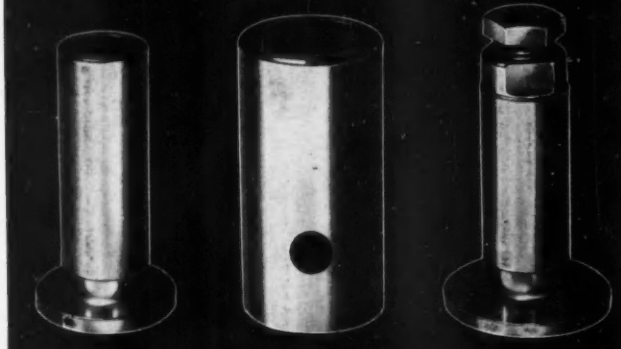
## C-76—Redesigned SR-4 Load Cells

A new U-1 series of SR-4 universal (tension-compression) load cells, redesigned for larger scale production, more

(*Turn to page 258, please*)


**JOHNSON TAPPETS**

assure top grade quality and dependability in your engines. All the plus values of skilled craftsmanship, expert "know-how" and finest materials are automatically yours when you select Johnson Tappets.



*automotive*
*tractor*
*industrial*

The Johnson Self Locking Tappet Screw has proven most satisfactory in cast iron and steel tappets.

*"Tappets Are Our Business"*

**JOHNSON JP PRODUCTS INC.**

**MUSKEGON, MICHIGAN**

First up . . .




First away . . .



## 10 speeds forward

# without gear splitting



You'll think there is a "souped up" engine under the hood the first time you drive a big rig equipped with a Fuller ROADRANGER. For this transmission really puts horsepower to work.

Gear-splitting is entirely *eliminated.* Shifts are simple, short, and fast, with only one power shift in the whole series. Yet you have 10 forward speeds—available in *equal,* progressive, selective steps, none exceeding 28%—to keep your engine *always* turning in its most efficient range.

With this transmission, there's no more engine lugging, no more low rpm between shifts. With the Fuller ROADRANGER, you can haul more, and maintain higher average speeds than ever before—with so much better utilization of horsepower that you make ⅓ fewer shifts.

Ask the man who has driven one. He'll tell you that with *one lever controlling 10 speeds,* he's always *first* up the steep grade, *first* away in city traffic. Write today for full information on the new Fuller ROADRANGER.

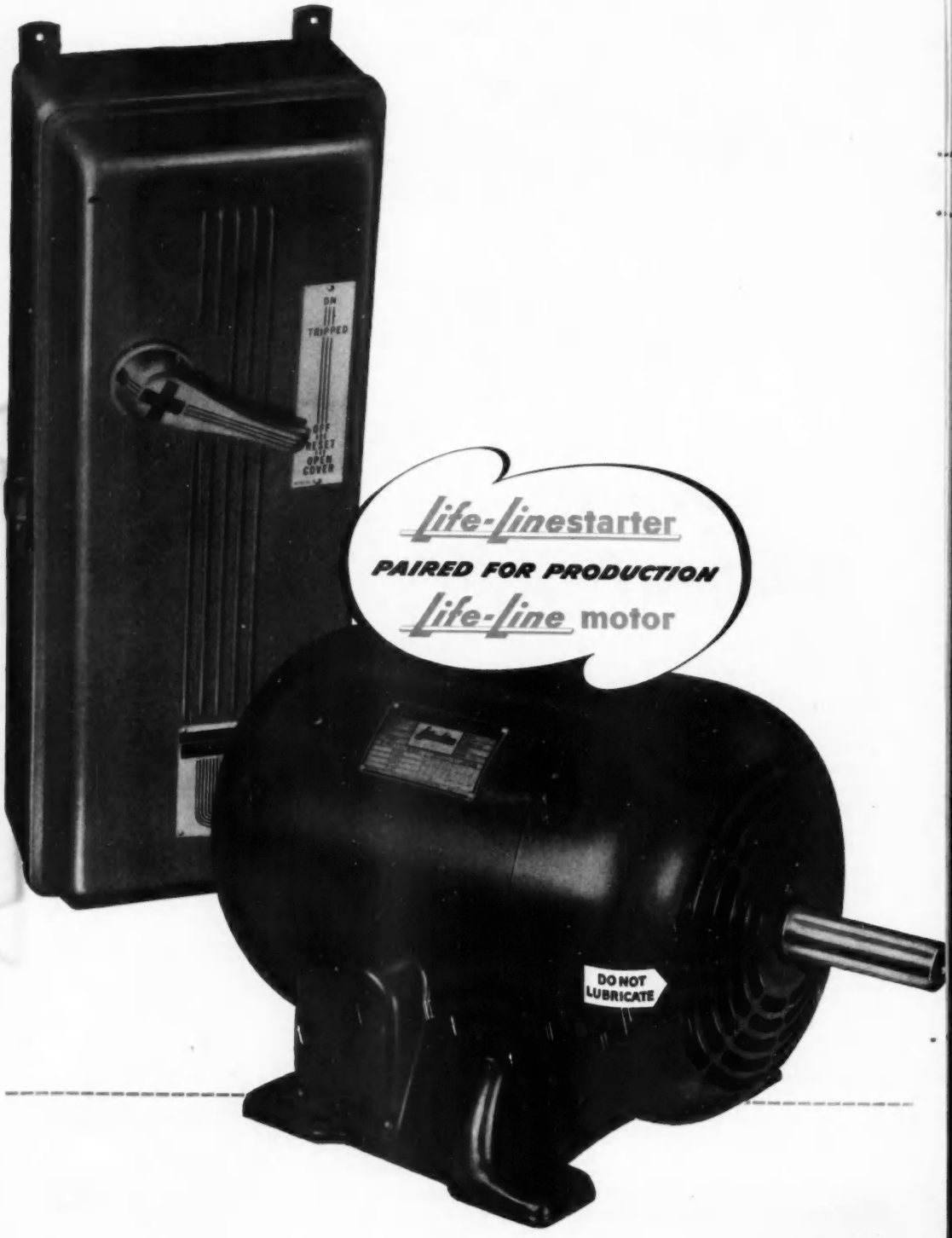
## Fuller Roadranger

**You shift 1-2-3-4-5 with the new *Fuller* ROADRANGER *Transmission.* Then, you push or pull the range selector button, shift through neutral and go right back through the series for 6-7-8-9-10. Yes, 10 speeds forward with no gear splitting. Straight shifts all the way. That's the *Fuller* ROADRANGER.**

Fuller TRANSMISSIONS

**FULLER MANUFACTURING COMPANY** (Transmission Division), KALAMAZOO 13F, MICHIGAN

Unit Drop Forge Division, Milwaukee 1, Wis. • WESTERN DISTRICT OFFICE (SALES & SERVICE—BOTH DIVISIONS), 1060 E. 11th Street, Oakland 6, Calif.


ON
TRIPPED
OFF TO RESET LU OPEN COVER
Life-Linestarter
PAIRED FOR PRODUCTION
Life-Line motor
DO NOT LUBRICATE

# *Mass Production?*

## Assures schedules two ways

When motors—or their controls—go out, they usually go one at a time. One outage, though, may cripple an entire line. And whether you are producing spark plugs, automobiles or tanks, down time means lost production time. Take just a minute, then, to consider the extra "Life" features of Life-Line motors and Life-Linestarters®. They have the stamina to keep equipment operating under adverse conditions.

Consider the motor, for example. Heavy steel frame resists corrosion, vibration and physical shock. And inside? The wound stator is completely protected with multiple baked coats of tough thermoset varnish to cut outages from oil, moisture, dirt and heat.

And, too, Life-Line motors need no lubrication. Factory-sealed, pre-lubricated bearings reduce motor burnouts—no danger of over-or-under-lubrication as with conventional motors. Down time licked again.

Life-Linestarter, the Life-Line motor's rugged partner, provides positive protection on the toughest assignments. Designed specifically to meet the requirements of the Joint Industrial Committee of Automotive Manufacturers (JICAM), the combination Life-Linestarter in NEMA XII enclosure is provided with a dual-voltage primary transformer for operation on either 220 or 440 volts. The rubber-gasketed, no-knock-out enclosure excludes dirt, oil and splashing coolant.

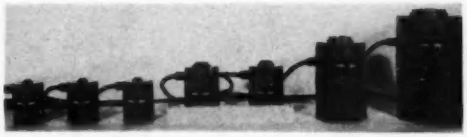
Simple design, simple operation, mean fewer operating parts to foul. Seesaw action of clapper prevents accidental operation, kickout spring assures positive opening. The pace setter among starters, Life-Linestarter assures the dependable performance you need.

More data? Ask your Westinghouse representative for "Life-Line Motor Book" B-3842 and "Tomorrow's Starter Today" B-4677, or write direct to Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Penna. J-21640

YOU CAN BE SURE... IF IT'S
Westinghouse
Life-Line
MOTORS and CONTROLS

# NEW PRODUCTS

*For additional information please use coupon on page 188*



*Baldwin SP-4 load cells, U-1 series.*

(*Continued from page* 254)

ample safety factor with overloads, and higher accuracy with off-center loads, has been placed in the market by Baldwin-Lima-Hamilton Corp., Phila., Pa.

The new load cells have the same construction as the Type U cells which are replaced as standard units: sealed-in sensing elements consisting of SR-4 resistance wire strain gages bonded to a steel column or bar and compensated for temperature variations. Female threads on both ends of the cells take tension or compression fittings.

Rated load capacities of Type U-1 load cells are 500, 1,000, 2,000, 5,000, 10,000, 20,000 and 50,000 lbs. Repeated overloading to 120 per cent of rated capacity causes no adverse effects. Repeated overloads to 150 per cent of rated capacity may cause a slight zero shift but will not impair measuring qualities; some shortening of cell life may be expected. Loads in either tension or compression up to three times these capacities can be carried without mechanical failure.

Accuracy of load measurement is within ± ¼ per cent of full range at any load within rated capacity. Relative sizes of the load cells are illustrated, the largest being only 6½ in. in diam and 11½ in. high. Load cells may be used with indicating, recording, or controlling instruments. Input current may be a.c. or d.c. at 4 to 8 volts.

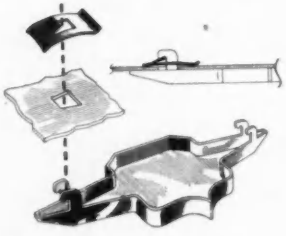
## C-77—Push-On Type Clip Fastener

New Push-On type Speed Clip for rapid fastening of an insignia onto the glove compartment door of an automobile, as announced by Tinnerman Products, Inc., Cleveland, Ohio, slips onto L-shaped studs on either end of the insignia. After the insignia is located by inserting the studs through two holes in the glove compartment door, a Push-On is slipped over the studs at either end and forced against the inside of the door panel. The clip is then locked in place by pressing it flat and sliding the single-prong form of the clip under the offset in the stud.

Two corners of the Speed Clip, which turn downward, bite into the compartment door panel. These, the arched base, and the resiliency of the prong on the clip, prevent it from moving in any direction, providing a firm, rattle-free installation for the life of the car.

The Speed Clip is 9/16 in. wide and ⅞ in. long, made of heat-treated spring steel, 0.014 in. thick.

(*Turn to page* 260, *please*)

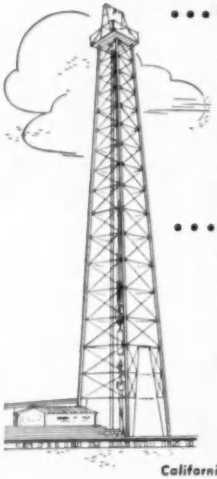


*Tinnerman Push-On type Speed Clip, illustrating (upper left) how fastened. Illustrated (upper right) is cross section of Speed Clip, and insignia in place.*




*This specially engineered cooling system includes radiator, fan and water pump in one compact unit . . . cools both engine and compressor.*

YA RADIATORS



**. . . designed for special conditions**

Boosting natural gas pressure at the well or at critical points along the pipeline calls for real dependability in compressor units . . . and their radiators. They serve in isolated places where breakdowns mean double trouble. And they are often moved from one point in the line to another so they have to be able to withstand rough treatment.

**. . . that need special engineering**

To meet these demands, manufacturers of pipeline equipment come to Yates-American . . . where special engineering to meet special conditions is a tradition.

Whatever your product — compressor, excavator, power plant, truck, tractor or locomotive — you can be sure the radiator will be engineered to match it if you come to Yates-American. Write today for further details.

*California Representative: E. E. Richter & Son, Emeryville, California*

**YATES-AMERICAN MACHINE CO.**

HEAT TRANSFER PRODUCTS DIVISION • BELOIT, WIS., CHICAGO, ILL.




## Powered to "give it" built to "take it"

## Exide DIESEL STARTING BATTERIES

Start your Diesel engines with Exide . . . the battery that's built specifically for the job. It's a product of long development and endless testing to give you top-cranking performance under the most severe operating conditions. With Exide Batteries you get:

*Quick breakaway* and *high cranking speeds.*

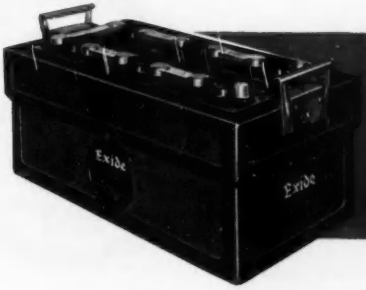
**RUGGED CONSTRUCTION** for hard service.

**EXTRA LONG LIFE**—low depreciation, less frequent replacements.

**LOW COST** maintenance.

Use Exide Diesel Starting Batteries for all heavy-duty service. Equip your trucks, buses, tractors or aircraft—gas or Diesel-powered—with economical, long-lasting Exide Batteries.

THE ELECTRIC STORAGE BATTERY COMPANY
Philadelphia 2
*Exide Batteries of Canada, Limited, Toronto*
*"Exide" Reg. Trade-mark U. S. Pat. Off.*




WHEN IT'S AN Exide
YOUR DIESELS START

1888 . . . DEPENDABLE BATTERIES FOR 63 YEARS . . . 1951

The FASTEST way to get

# Surface Roughness Ratings in the Shop



*At Allied Products Corp., Hillsdale, Michigan . . . the Profilometer Type Q Amplimeter, the Type A Linear Pilotor and KA Tracer in use.*

is with

## THE PROFILOMETER

Where precision parts are produced in high volume—as they are at Allied Products Corporation—both production inspection and final inspection operations must be geared to handle a steady and substantial flow of work. When surface roughness measurement is a production requirement, it is the Profilometer that provides the fastest and simplest method of securing accurate readings.

The Profilometer has a normal tracing speed of ¼" per second—far faster than any other instrument of its type. And in the time required to make a shop check of surface roughness by comparative methods, you can take *several* Profilometer readings. In addition, Profilometer equipment can be moved from machine to machine and set up quickly and easily.

Of most importance, you get this speed of surface roughness measurement where you need it—*in your production departments.* Because the Profilometer is a ruggedly built instrument, it can be used anywhere in the plant and operated next to machines by the set-up men or the machine operators themselves. It is designed not as a laboratory instrument but as a shop tool.



Regardless of the type or volume of your production, you will always find the most *practical* method of measuring surface roughness in the shop is with the Profilometer.

*GET THE WHOLE STORY in these free bulletins. Write for them today.*

*Profilometer* is a registered trade name.

PRC

PHYSICISTS RESEARCH COMPANY

*Instrument Manufacturers*

ANN ARBOR 12 • MICHIGAN


# NEW PRODUCTS

*For additional information please use coupon on page 188*

(*Continued from page* 258)

## C-78—Silicone Base Heat-Resistant Finish

A new heat resistant finish—Sicon—formulated from a silicone base, and manufactured by Midland Industrial Finishes Co., Waukegan, Ill., has now been further improved and refined, and is claimed to exhibit unusual stability at temperatures as high as 1000 F. This has led to its adoption as the only heat resistant finish to solve specific finishing problems, according to a brochure just issued by the company.

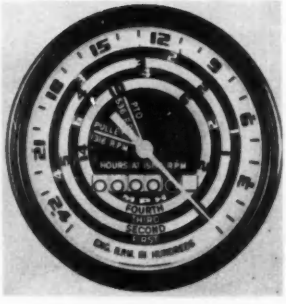
Sicon has reportedly been thoroughly proved on the production line for such products as industrial furnaces, heating units, and similar products; and is recommended by the manufacturer for protecting and preserving the surfaces of a variety of other products where ordinary heat resistant finishes fail—mufflers, tail pipes, exhaust stacks, motorcycles, engine boilers, aircraft parts, electrical equipment, and high-temperature processing equipment.

Sicon gains its heat resistant properties from the amazing silicones, heat stable organo-silicon oxide polymers, well known to possess extreme resistance to heat, moisture, oxidation, and ultra-violet rays of themselves.

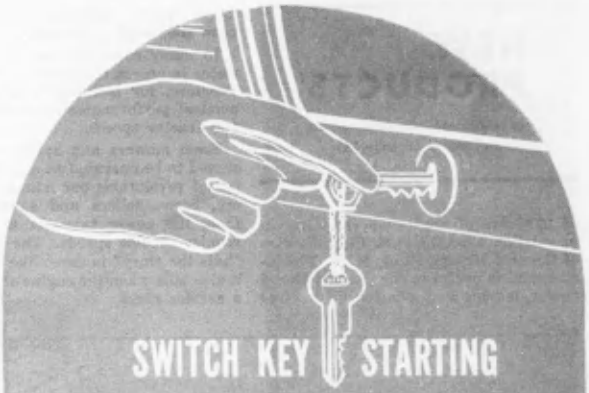
Sicon is available in easy-to-apply form—by brush, spray, or dip, and requires only a chemically clean surface obtained in any ordinary manner. Sicon was formerly marketed under the trade name Mico.

## C-79—Hourmeter for Clocking Engines

An hourmeter, which gives the engine revolutions per minute and keeps track



*Hourmeter of the AC Spark Plug division of General Motors*



SWITCH KEY STARTING

# COSTS LESS

WITH **Bendix**

# STARTER DRIVE

Just turn the ignition key and you're ready to go—that's the new and convenient way of starting. And best of all, switch key starting, like most starting systems, costs less with Bendix* Starter Drive. This unique combination of convenience and low cost is made possible by Bendix exclusive design features. For example, the Bendix Starter Drive requires no actuating linkage and the solenoid may be placed in any convenient position. Result—starting motor can be mounted more easily and in more positions. Also, the Bendix Drive has fewer parts and needs fewer adjustments. If you want true economy from installation to service, plus performance proven by over 85,000,000 installations, be sure to specify Bendix Starter Drives. Your inquiry will receive immediate attention.

*REG. U.S. PAT. OFF.

**ECLIPSE MACHINE DIVISION of**

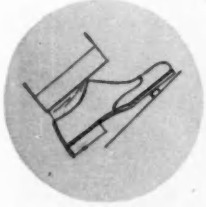
Bendix AVIATION CORPORATION

**ELMIRA, NEW YORK**

Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, N. Y.



PUSH BUTTON



FLOOR BUTTON

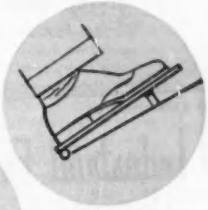
**SPECIALISTS IN ALL TYPES OF STARTING!**



SWITCH KEY



CLUTCH PEDAL



ACCELERATOR

# NEW PRODUCTS

*For additional information please use coupon on page 188*

of total hrs of engine operation, is in production by AC Spark Plug division of General Motors, Flint, Mich. The instrument is useful in the tractor, Diesel power, marine and aviation fields. One major tractor manufacturer is said to have adopted it as standard equipment.

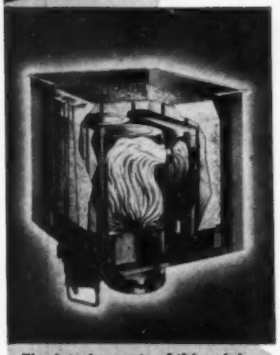
In many cases the use of the hourmeter improves efficiency of machinery. Tractors, for instance, give most economical performance at certain engine and tractor speeds.

Some mowers and sprayers are designed to be operated at a certain number of revolutions per minute. Threshers, corn shellers and saws running from the power take-offs of tractors, require specific speeds. The hourmeter "tells the story" in cases like these, and it also tells when the engine should have a service check.


Sicon Formerly MICO

Silicone-Base High Heat-Resistant Finish

PROTECTS THIS PRODUCT AGAINST TEMPERATURES OF 870° (F.)



The interior parts of this miniature inferno are SICON-coated.

☆ It takes an unusual finish to withstand the constant high heat generated by the combustion chamber of the Superflame Floor Furnace, made by the Queen Stove Works, Inc. Yes, SICON lengthens the life of this unit because it does not break down like ordinary finishes due to its amazing stability under high heat. SICON is the first commercially priced silicone base finish that can be applied by brush, spray or dip and which either air dries or adapts itself to any existing force drying system.

*Write for data.*

Manufactured exclusively by

MIDLAND Industrial Finishes

Waukegan, Ill.

ENAMELS · SYNTHETICS · LACQUERS · VARNISHES


## C-80—Precision Bushings For Grinding Wheels

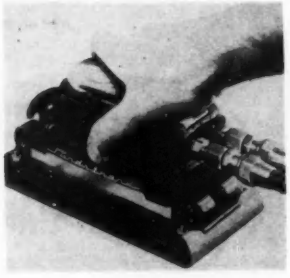
Latest development for grinding wheels, announced by Norton Co. of Worcester, Mass., are precision bushings which are pressed into the wheel, as contrasted to poured lead bushings that have been standard practice for many years. Advantages claimed are the light weight of the new bushings



*Norton precision bushings for grinding wheels.*

and their uniformity of size, which preserve the inherent balance of wheels made by Norton's new manufacturing process. The new precision bushings likewise are said to maintain more consistent hole size from wheel to wheel, with consequent advantages of uniform mounting conditions for the user. The press fit method of mounting the bushings, further, insures greater holding power within the wheel. At present these bushings are being used in straight wheels 5 in. to 8 in. in diam. Use is to be extended to wheels of other shapes and sizes.

## C-81—Single-Pad Air Sander



*Sundstrand single-pad air sander.*

Addition of a new straight-line action single-pad air sander to their line of double-pad air sanders has been announced by the Pneumatic Division of Sundstrand Machine Tool Co., Rockford, Ill. Its straight-line action is said to leave no swirls or pressure marks and the sander operates either wet or dry.




*You're always right with*

# AUTO-LITE

AUTO-LITE serves the nation's needs . . . with more than 400 products used as original factory equipment on many leading makes of America's finest cars, trucks and tractors. By building products of the highest quality and dependability . . . Auto-Lite has grown to be the world's largest independent manufacturer of automotive electrical equipment . . . and the best advertised name in the automotive after market. Today's buyers of cars and trucks know "You're Always Right With Auto-Lite."

THE ELECTRIC AUTO-LITE COMPANY
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**WORLD'S LARGEST INDEPENDENT MANUFACTURER OF AUTOMOTIVE ELECTRICAL EQUIPMENT**




More production per grinding wheel dollar. That's why George is the boss's brainy boy. How did he get that way? Simply by changing over to a grinding wheel slightly different in grain and grade . . . a Simonds wheel, naturally. This could be a right, bright production boosting idea for you too. You'll find everything you need in our complete line . . . grinding wheels, mounted wheels and points, segments, abrasive grains. Let's send you our free Data Book and the name of your nearby Simonds Abrasive Company distributor.

SIMONDS ABRASIVE CO.

grinding wheels

**SIMONDS ABRASIVE COMPANY, PHILADELPHIA 37, PA.**

**DISTRIBUTORS IN ALL PRINCIPAL CITIES**

Division of Simonds Saw and Steel Co., Fitchburg, Mass. Other Simonds Companies: Simonds Steel Mills, Lockport, N. Y., Simonds Canada Saw Co., Ltd., Montreal, Que. and Simonds Canada Abrasive Co., Ltd., Arvida, Que.


# NEW PRODUCTION AND PLANT EQUIPMENT

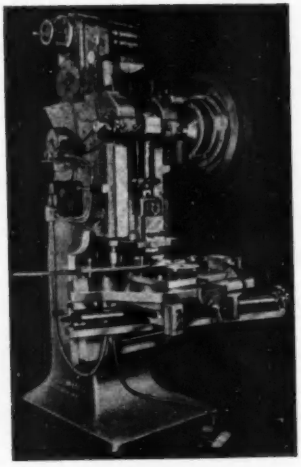
*For additional information please use coupon on page 188*

(*Continued from page* 252)

## B-42—Segmental Notching Press

The V & O Press Co., Hudson, N. Y., has developed a new type press for notching motor segment laminations. The segmental notching Press is used for the notching of rotor or stator segments of the larger sizes, which cannot be handled on the conventional index ring type of fixture. Capacity is from 24 in. diam segments up to a straight line.

With the air-operated arrangement provided, the operator places the segment blank in position on the fixture and steps on a foot switch. The segment automatically moves into notching position against a stop, which immediately starts the press and performs the prescribed notching operation. At the



*V & O segmental notching press.*

end of the cycle, a micro switch action stops the press and returns the notched segment to its original position for removal.

For the various number of notches required, no index ring is needed, as the spacing is provided in the die.

AUTOMOTIVE INDUSTRIES
*Keeps You Informed*

# Shape of things to come...



From the furniture industry to many widely different fields, scores of manufacturers are planning for the future—improving their products for the time when production for civilian use will again be first and foremost.

In planning improvements and shaping your company's future products, you will profit by using OSTUCO Steel Tubing. More and more, product designers and engineers are proving that *costs can be cut, beauty enhanced, and strength increased with less weight and bulk.*

Due to the ever-increasing demands of our armed forces, we cannot promise early delivery on new civilian orders. Meanwhile, however, our experience-wise engineers are at your service to provide helpful information and advice . . . to make your future plans take shape with OSTUCO Steel Tubing.

*From Your Blueprint . . . to Your Product*

**OSTUCO TUBING**

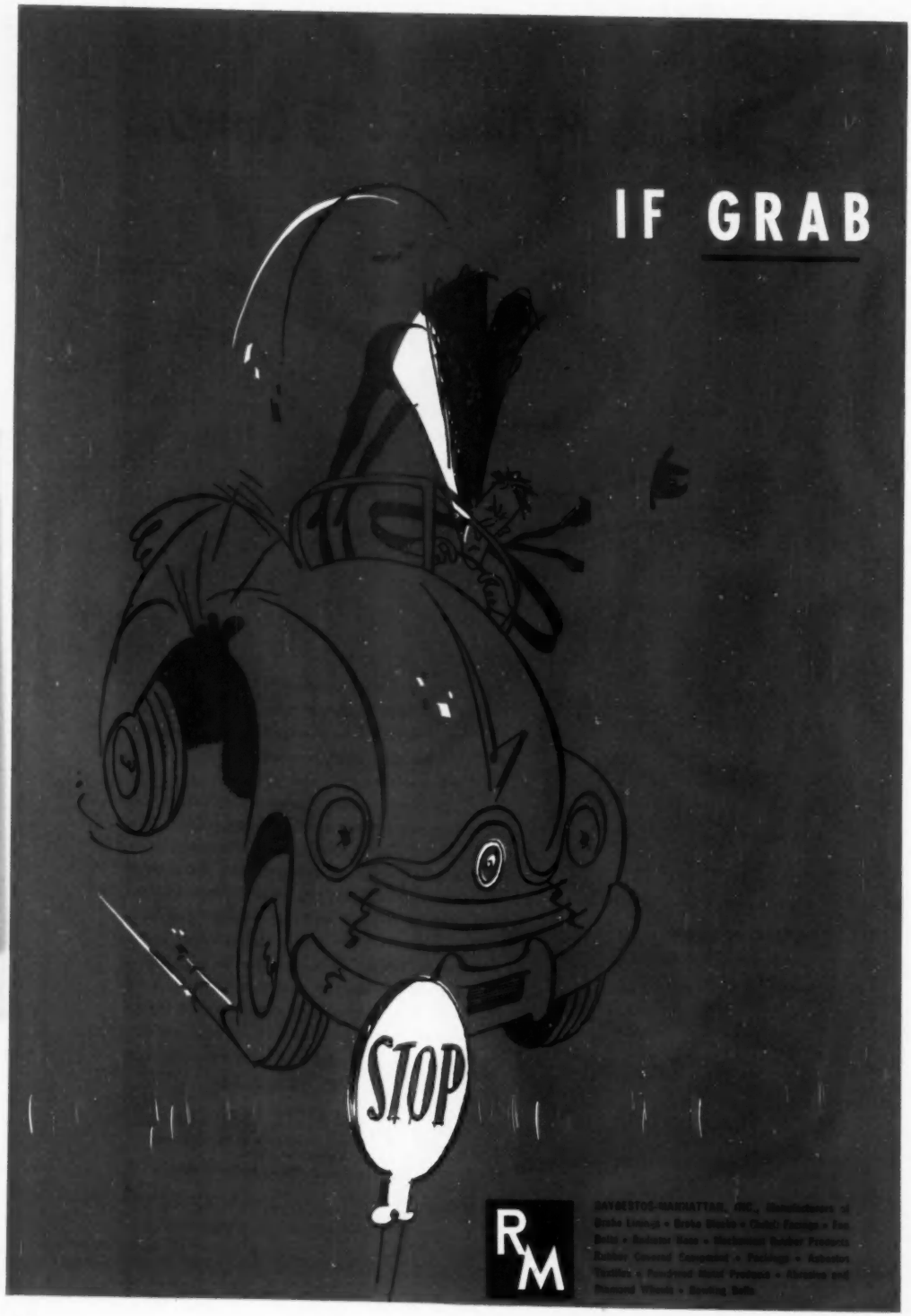
Tapering • Swaging • Flanging • Bending
Upsetting • Expanding • Reducing • Beading
End closing • Spinning • Drilling • Slotting
Notching • Flattening • Shaping • Trimming
Threading • Angle Cutting • And Many Others

**THE OHIO SEAMLESS TUBE COMPANY**

*Manufacturers and Fabricators of Seamless and Electric Welded Steel Tubing*

**Plant and General Offices: SHELBY 12, OHIO**

**SALES OFFICES:** BIRMINGHAM, P. O. Box 2021 • CHICAGO, Civic Opera Bldg., 20 N. Wacker Dr. • CLEVELAND, 1328 Citizens Bldg. • DAYTON, 511 Salem Ave. • DETROIT, 520 W. Eight Mile Road, Ferndale • HOUSTON, 6833 Avenue W, Central Park • LOS ANGELES, Suite 300-170 So. Beverly Drive, Beverly Hills • MOLINE, 617 15th St. • NEW YORK, 70 East 45th St. • PHILADELPHIA, 1613 Packard Bldg., 15th & Chestnut • PITTSBURGH, 1206 Pinewood Drive • ST. LOUIS, 1230 North Main St. • SEATTLE, 3104 Smith Tower • SYRACUSE, 501 Roberts Ave. • TULSA, 733 Kennedy Bldg. • WICHITA, 622 E. Third St. • **CANADIAN REPRESENTATIVE:** RAILWAY & POWER CORP., LTD.


IF GRAB
STOP
RM

# IS YOUR PROBLEM...



## R/M has the friction materials to help you!

*Smoothness* in starting and stopping is a major demand in cars, trucks, buses, and countless other kinds of equipment. But smoothness of brakes and clutches isn't always easily achieved, especially in these days of higher power, faster speed, mounting pressure. To make starts and stops consistently smoother, however, R/M is constantly *engineering in advance of the need.* Toward this end, new combinations of friction materials . . . woven, molded, semi-metallic, and full-metallic . . . are regularly being laboratory-tested and road-tested.

Other operating problems, too, have been licked by R/M's ingenuity and production know-how. If you have a problem with moisture, extreme temperatures, oil immersion, uneven wear, or one of friction materials for automatic transmissions . . . call in your R/M representative. Or write for R/M Engineering Bulletins. In doing so you enlist the aid of the world's largest maker of friction materials . . . with four great plants, four research departments, and four testing laboratories.

**RAYBESTOS-MANHATTAN, INC.**

**EQUIPMENT SALES DIVISION** **620 Fisher Bldg., Detroit 2, Mich.**

445 Lake Shore Drive, Chicago 11, Ill.

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R M

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# It's always SPRING TIME at NO. 2 JOHN ST.



In fact, we at American-Fort Pitt Spring have been making coil springs—all kinds, hot or cold wound—spring, summer, fall and winter, for more than sixty years.

Over the years our engineers have worked on almost every conceivable type of spring problem. In many instances their recommendations have helped cut production costs and improve product performance. In every instance the springs we furnish are delivered precisely as specified and in conformity with highest standards.

When you need springs, the No. 1 place to think of is No. 2 John Street, McKees Rocks, Pa., home of the AMERICAN-FORT PITT SPRING Division of H. K. Porter Company, Inc.



**AMERICAN-FORT PITT SPRINGS**


# CALENDAR

## OF COMING SHOWS AND MEETINGS

### Conventions and Meetings

Amer. Soc. Tool Engrs., New York City .....Mar. 17

Western Metal Exposition and Congress, Oakland, Calif. .....Mar. 19-23

Pacific Automotive Show, Seattle Mar. 21-24

Salone Internazionale Dell Automobile, Turin, Italy .....Apr. 4-15

British Automobile and Motor Cycle Show, New York City .....Apr. 15-23

Amer. Soc. Lubricating Engrs., Phila. .....Apr. 16-18

SAE National Aeronautic and Aircraft Engine Display, Hotel Statler, N.Y.C. .....Apr. 16-18

Amer. Mgt. Assoc., Nat'l Packaging Expos., Atlantic City .....Apr. 17-20

1951 Metal Powder Show and 7th Annual Meeting of Metal Powder Assn., Cleveland, Ohio .....Apr. 25-26

Chamber of Commerce Annual Mtg. Washington, D. C. .....Apr. 30-May 2

Materials Handling Conference, Chicago .....Apr. 30-May 4

A.E.R.A. Convention, Chicago ....May 7-9

Society for Experimental Stress Analysis, National Bureau of Standards, Wardman Park Hotel, Washington, D. C. .....May 16, 17, 18

Amer. Society for Quality Control, Cleveland .....May 23-24

Third World Petroleum Congress, The Hague, Scheveningen, Holland .....May 28-June 6

SAE National Summer Meeting, French Lick, Ind. .....June 3-8

American Gear Manufacturers Assn. (Annual Meeting), Hot Springs, Va. .....June 4-6

American Society of Mechanical Engineers semi-annual meeting, Toronto, Canada .....June 11-15

American Society for Testing Mat'ls Annual Meeting, Atlantic City, N. J. .....June 18-22

SAE National West Coast Meeting, Seattle, Wash. .....Aug. 13-15

First European Machine Tool Exhibition, Paris .....Sept. 1-10

SAE Tractor and Production Forum, Milwaukee, Wis. .....Sept. 10-13

Sixth National Instrument Conference and Exhibit, Houston, Texas Sept. 10-14

American Society of Mechanical Engineers (fall meeting) Minneapolis, Minn. .....Sept. 25-28

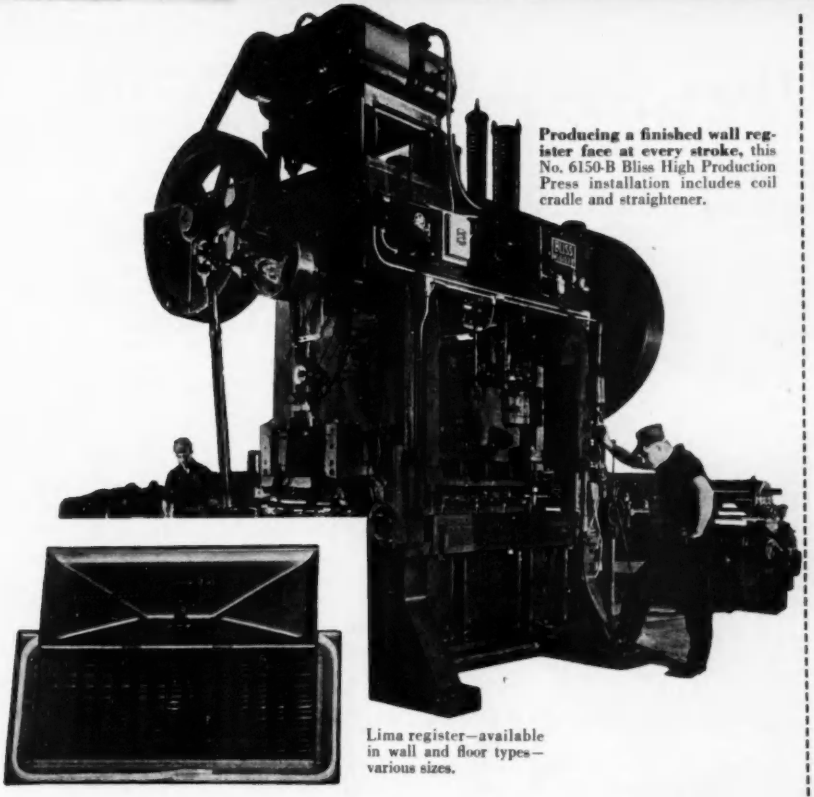
Nat'l Metal Trades Assn., Chicago, Ill. .....Sept. 26-28

SAE National Aeronautic, Production Forum, And Display, Biltmore Hotel, Los Angeles, Calif. ....Oct. 3-6

SAE National Diesel Engine Meeting, Drake Hotel, Chicago, Ill. ...Oct. 29-30

SAE National Transportation Meeting, Knickerbocker Hotel, Chicago, Ill. .....Oct. 29-31

SAE National Fuels and Lubricants Meeting, Drake Hotel, Chicago Ill. .....Oct. 31-Nov. 1



**Producing a finished wall register face at every stroke,** this No. 6150-B Bliss High Production Press installation includes coil cradle and straightener.

Lima register—available in wall and floor types—various sizes.

# 5 Bliss Automatic Presses at Lima Register Co. equal output of 65 hand-fed

### COST OF VALVE IS 1/25th THAT OF HAND-FED PART

It's a fact! In choosing equipment and methods to produce stampings for the famous Lima Register, Bliss and Lima engineers agreed that 5 Bliss presses set up for automatic operation would equal the output of 65 hand-fed presses.

Now, 18 months later, the plant is in full production and the 5 Bliss presses are turning out all the stampings required.

Two Bliss High Production Presses with progressive dies and Bliss coil cradles handle the bulk of the production. Stamping runs of 15,000 or more are assigned to these presses. Bliss Inclinable Presses with roll feeds are exactly suited for the production of a variety of small-lot stampings.

An example of the unusual savings achieved by Lima is the floor register valve. Formed complete—80 a minute—in a Bliss No. 675 High Production Press, it costs only 1/25th of a hand-fed stamping.

Similarly, high savings are obtained on all stampings produced on Bliss automatic presses.

If your stamping runs are 50,000 or more ask Bliss engineers how High Production Presses can increase your profits. Your nearest Bliss representative will be glad to talk about converting your hand-fed stampings to automatic operation.

**E. W. BLISS COMPANY, CANTON, OHIO**



Valve for floor register...80 per minute...20 gauge steel...675 Bliss High Production Press.



Body slide...80 per minute...20 gauge steel...675 Bliss High Production Press.



Short border...75 per minute...16 gauge steel...6150 Bliss High Production Press.



Sliding channel...100 a minute...20 gauge steel...675 Bliss High Production Press.



Hinge angle...100 a minute...20 gauge steel...675 Bliss High Production Press.



Cold air face...40 a minute...blanked on 6150 Bliss High Production Press; formed on 21½ Bliss Inclinable Press.



Chain clip...100 a minute...24 gauge steel...Bliss 21-B Inclinable Press.

BLISS BUILT

**FROM THE RIGHT PRESS FOR A GIVEN JOB**

**...TO A COMPLETE PRESS ROOM...**

**It's Bliss**

# General News

(*Continued from page 69*)

### *Strike Cuts Chrysler Net Despite Record Sales*

Although the Chrysler Corp. set a record in 1950 for unit and dollar sales, net profit was down from the previous year by more than $4.2 million. The drop in earnings in spite of the record volume of business was accounted for by losses incurred during the 100-day strike last spring. Dollar sales last year totaled $2.19 billion and included unit sales of 1,313,239 cars and trucks. Net earnings totaled $127,876,791 representing 5.84 per cent of sales compared with $132,170,096, or 6.34 per cent of sales in 1949. In a statement to stockholders, K. T. Keller, board chairman, said that government restrictions on materials together with the distorted relationship of car costs to selling prices will have a marked effect upon Chrysler's earnings. He added that it is impossible to tell now to what extent military production will supplant civilian operations.







*Thermocouple Protecting Well*

**"... and The Walls of this Well are *Uniform!*"**

THAT's Honeywell Supplies Man E. R. McCune, of our New York Office, telling a customer the special features of a Brown Precision-Made Protecting Well. First discussed was the *application* . . . then McCune showed the customer the *correct* well for his process.

The engineering "know-how" of an HSM representative can be of real help to you in choosing the correct well, or thermocouple, for your application . . . and you'll be surprised when you learn how much convenience and economy the HSM Plan can add to all of your pyrometer supplies purchasing.

Call in your local Honeywell Supplies Man today . . . for full particulars on the plan that will save you time, money and work. He is as near as your phone! MINNEAPOLIS-HONEYWELL REGULATOR CO., *Industrial Division*, 4548 Wayne Ave., Philadelphia 44, Pa. Stocks for immediate shipment in Philadelphia, Cleveland, Chicago, Atlanta, Houston, Los Angeles and San Francisco.

***Advantages of* BROWN PRECISION-MADE PROTECTING WELLS**

1. *Uniform wall thickness of engineered accuracy.*
2. *A complete line . . . Your assurance of the right well for your application.*
3. *Made of practically all common metals and alloys . . . of almost any wall thickness, to withstand high temperatures and pressures.*
4. *Quick delivery . . . stocks maintained at branch offices.*

MINNEAPOLIS **Honeywell**
BROWN INSTRUMENTS


### *Government Modifies Nickel Plate Order*

Nickel plating for grilles, trim, wheel rings, and other automotive items may continue after March 1 in some cases under a slight modification of the nickel order by NPA. The revision permits manufacturers to use nickel in inventory after that date for plating items previously banned if the metal cannot be used for more essential items. It now appears that bright work on automobiles will remain for some time yet either through modification of existing restrictions, use of permitted metals such as non-nickel bearing stainless steel, or development of alternate materials resembling chrome finish. It is understood that a process now is under development which uses a metallic finish overlaid by a protective coat of clear lacquer. In any event, it probably will be June before present forms of bright work are eliminated by government order because of the lead time factor.

### *Jet Engines Dominate New War Orders*

Size of the most recent jet engine contract awarded to GM is indicated by the fact that two divisions will be assigned the production job. It has been revealed that both Chevrolet and Allison divisions will share in production of the engine, a newly developed Allison turbo-jet power plant, called the J35-A23. It has a thrust rating substantially higher than any jet engine produced up to now and offers a reduction in specific fuel consumption from other jet engines now being built. The contract is one of the largest single orders ever placed with GM. The engine represents a completely new engine design although it carries the J-35 series identification of engines now used in Air Force fighters. It retains the basic diameter of engines in the previous series but produces more power per square foot of frontal area. Chevrolet will build its part of the contract in several Chevrolet plants with final assembly test at the Tonawanda, N. Y., government plant the division operated in World War II.

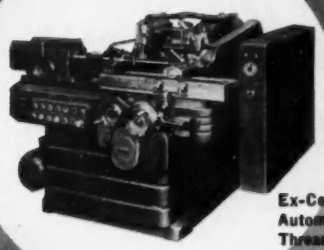
The Bell Aircraft Corp. has negotiated a lease for most of the former Globe Aircraft facilities at Fort Worth, Tex. It will use the facilities as a buildup shop for jet engine nacelles. Some of the completed nacelles will be built for Consolidated Aircraft's Fort Worth operations for installation on B-36 bombers. Others will be shipped to Boeing in Seattle for installation on the B-47. Douglas Aircraft Co. will build additional facilities at the government-owned plant at Tulsa, Okla., under a $11.5 million contract.

Ford is negotiating with Westinghouse Electric Co. and the Navy for production of the J-40 turbo-jet engine.

(*Turn to page 272, please*)

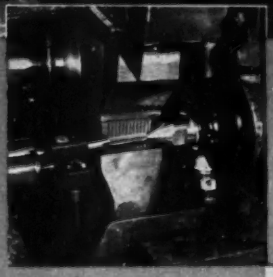
# THE BUSIEST MACHINE IN YOUR SHOP

# EX-CELL-O AUTOMATIC THREAD GRINDER

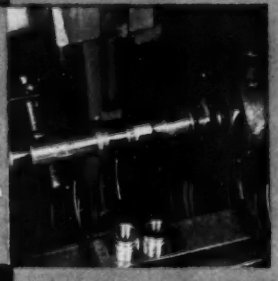


Ex-Cell-O Style 33 Automatic Precision Thread Grinder for external threads. Standard models for internal threads and universal models for both internal and external threads also are made by Ex-Cell-O.



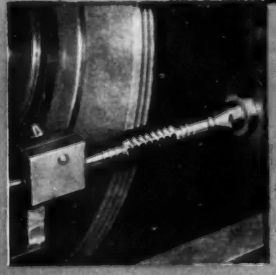


Grinding threads on cast-iron part with diamond dressed multiple-rib wheel on a Style No. 33 Grinder.



Skip-tooth diamond dressed multiple-rib wheel (wheel form is twice pitch of thread) grinding a ½"—18 tap.

Threading stainless steel aircraft bushings on an Ex-Cell-O Style 33 Automatic Thread Grinder.



All three starts of a triple-start worm are ground simultaneously with a triple-rib wheel.

For high production with extraordinary precision, Ex-Cell-O Style 33 Automatic Thread Grinder is a popular choice. It is easy to set up and operate. With equipment for using multi-rib wheels, as shown in the accompanying photographs, output exceeds other methods.

Thread grinding is a must for hardened steel parts. More and more shop supervisors are discovering that grinding is also economical for materials that are tough and abrasive, or soft materials that are inclined to tear under the pressure of cutting tools.

For more information on thread grinding call your Ex-Cell-O representative or write directly to Ex-Cell-O. Please state whether you are interested in internal or external threads or both.

XLO

## EX-CELL-O CORPORATION DETROIT 32 MICHIGAN

51-13

MANUFACTURERS OF PRECISION MACHINE TOOLS CUTTING TOOLS • RAILROAD PINS AND BUSHINGS DRILL JIG BUSHINGS • AIRCRAFT AND MISCELLANEOUS PRODUCTION PARTS • DAIRY EQUIPMENT

# Kester Solder



Delicate fabrication or massive work, Kester makes a specialized flux-core solder (over 100,000 different types and sizes) that will do the job perfectly. Kester Solders are made only from newly mined grade A tin and virgin lead.

# Preferred

Kester Flux-Core Solders are not only preferred by industry, but individual workers also insist upon Kester to enable them to do their best work with a minimum of rejects.

# Saves Time

A Kester Technical Engineer, with his wide experience in industry, will specify the most efficient flux-core solder for your operation and will suggest the best method of application.

**Kester Solder Company**
4201 Wrightwood Ave., Chicago 39
Newark, N. J. Brantford, Canada

*Send for free manual "SOLDER and Soldering Technique"*

KESTER SOLDER




Standard for Industry since 1899


# General News

(*Continued from page 270*)

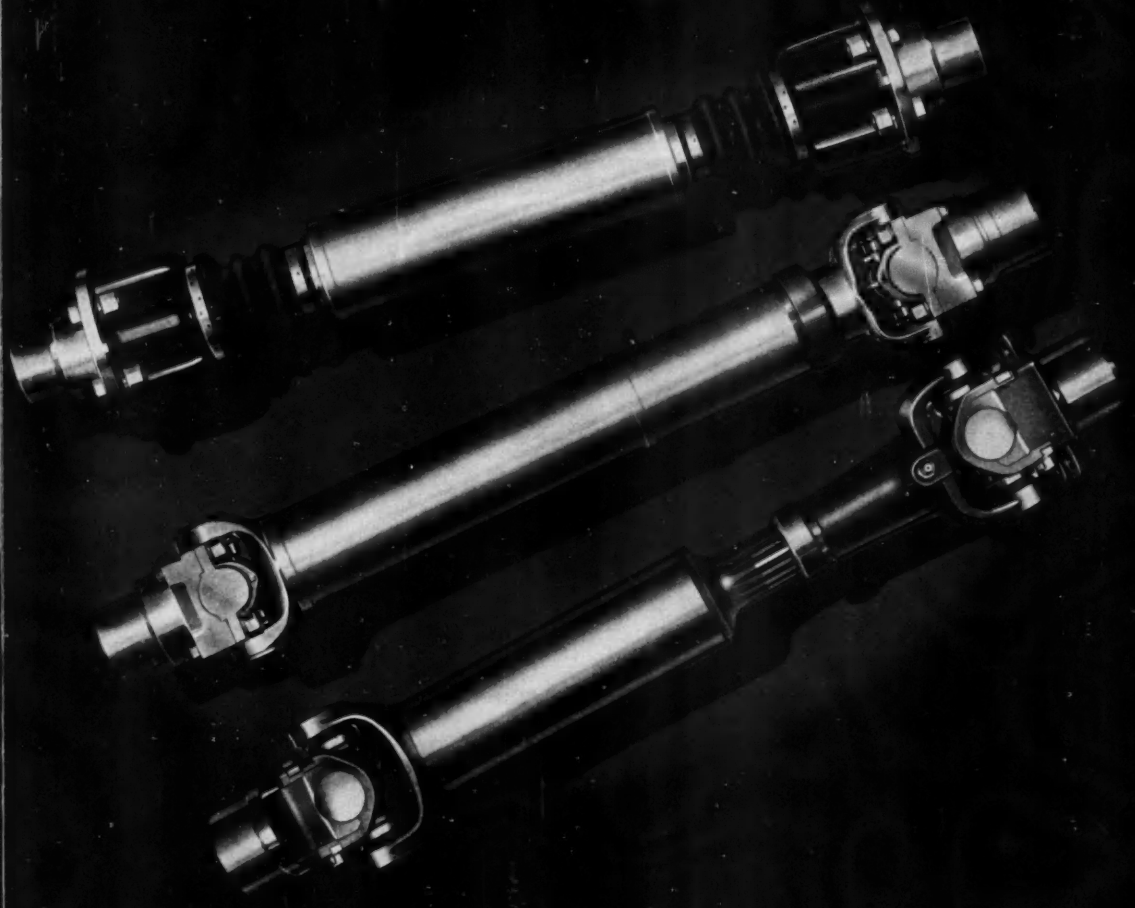
If the project materializes, the engines will be built at Detroit. The pattern of military contracts for jet aircraft engines indicates that the automobile industry will play a major role in that type of production with Detroit and Michigan an important production center. Counting the Ford commitment as a good possibility, Detroit will have three jet engine assignments with another large one at Flint. Chrysler has a large order for the J-48 for the Navy; Packard will build the J-47, and Buick the J-65. In addition, many of the components for the very large contract held by Chevrolet and Allison division will be supplied from automotive plants in Detroit and Michigan. Studebaker is also reported to have a contract to build the J-47 turbo-jet. Ford has been awarded a letter order for production of medium tanks to be built in the Detroit area. Value of contract is estimated at $195 million. The tanks will be produced in a new plant to be built for the purpose, but the exact location in the Detroit area has not yet been determined. About 8000 employes will be required for the program when it is at full production. The tank order brings Ford's commitments for defense items to nearly $1 billion and when all programs are in full production an estimated 42,000 additional employes will be required. Dave W. Lee, currently head of the Tractor and Industrial Engine operations, has been named to head up the tank production programs. Ford has an initial order for approximately $7 million to produce ammunition parts for the Army. Floor space to accommodate the project has been provided at the Highland Park plant. The company also has an $18.5 million order for stake trucks; $15 million for parts to rebuild tank engines; and $5.7 million for smaller trucks.

GM already has defense orders amounting to $3 billion, or about 25 per cent of the total value of war products GM produced during the six years 1940-1945. The $3 billion does not include amounts being spent for facilities nor does it represent the total ultimate value of war orders now on the books, since initial quantities ordered usually represent only a part of the volume ultimately required. In a statement preliminary to its annual report, GM pointed out that the $3 billion is not an estimate of defense production that will be attained this year since output in quantity on most items cannot begin until next year because major projects are still in the tooling stage. All 34 GM manufacturing divisions in

(*Turn to page 276, please*)

# DETROIT UNIVERSAL JOINTS

*the Original Equipment Line*



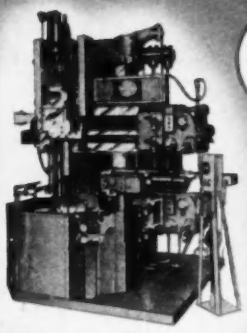
**DETROIT Universal Joints keep pace with modern automotive and ordnance design. Over 40,000,000 units have been used as original equipment on passenger cars, trucks, and military vehicles.**

**Detroit UNIVERSAL JOINTS**

**UNIVERSAL PRODUCTS COMPANY, Inc., Dearborn, Michigan**

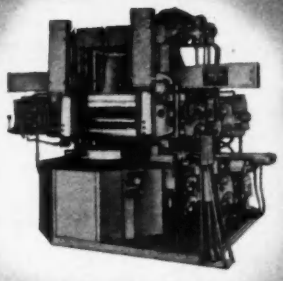
# INDUSTRY SELECTS

## BULLARD

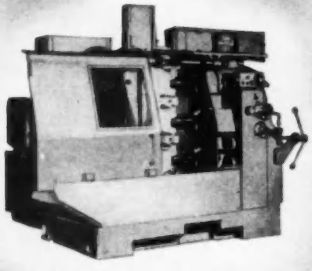


36" Man-Au-Trol Vertical Turret Lathe

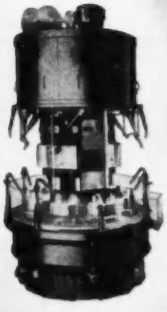
Man-Au-Trol V. T. L's in six sizes 30" — 36" with two heads 42"—54"—64"—74" with three heads



54" Man-Au-Trol Car Wheel Lathe

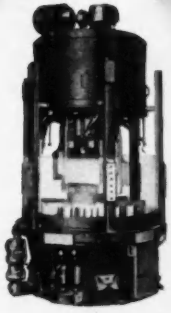


Man-Au-Trol 3 Spindle Horizontal Lathe

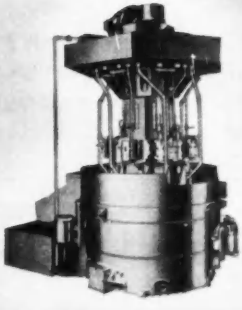


Mult-Au-Matic Type "D"

Mult-Au-Matic Type "D" 8" — 12" — 16" with 6 or 8 spindles, Type "D" 16-23 and Type "K" 6 spindles — twin 6 spindles — 8 spindles and twin 8 spindles



Mult-Au-Matic Type "K"

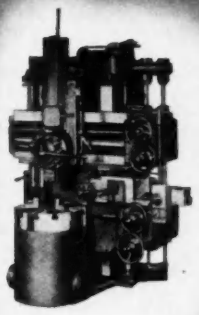


Contin-U-Matic Types "RD" and "RDH" 3-4-6 and 12 spindles in 10" — 14" — 20"

THE

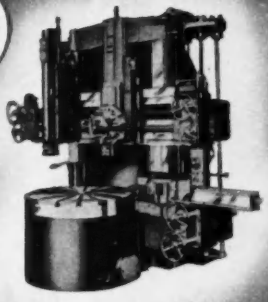
# *for Manufacturing Economy*

## BULLARD



30" Cut Master Vertical Turret Lathe

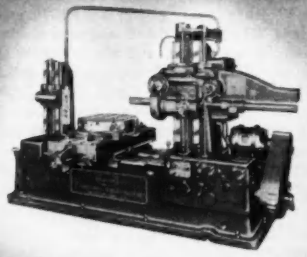
Cut Master Vertical Turret Lathes in six sizes 30" — 36" — 42" — 54" — 64" and 74". The 30" and 36" sizes have two heads while 42" — 54" — 64" and 74" have three heads obtainable in various combinations



54" Cut Master Vertical Turret Lathe

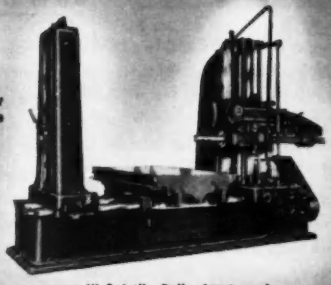


30 x 20 Spacing Table mounted on Super Service Drilling Machines. It may also be mounted on 4' — 5' or 6' Radial Drills



3" Spindle Bullard-Universal Horizontal Boring Machine

3" — 4" and 5" Spindle Bullard-Universal Horizontal Boring, Milling and Drilling machines are available with various Bed Lengths and Post Heights



4" Spindle Bullard-Universal Horizontal Boring Machine

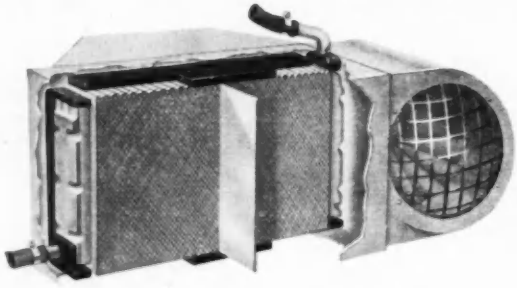
# BULLARD COMPANY

BRIDGEPORT 2, CONNECTICUT U.S.A.

# RUBATEX GASKETS



**. . . give the maker of this auto heater**



**. . . these advantages:**

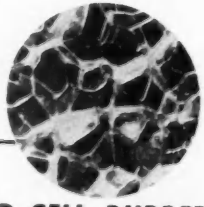
***NO AIR LEAKAGE***
***PERFECT MOISTURE SEAL***
***NO DUST PENETRATION***
***40% COST REDUCTION***

Die cut RUBATEX Gaskets added so much to the efficiency of this heater that the prominent car manufacturer found it possible to use a smaller core and thus reduce the cost of the unit 40%.

RUBATEX Closed-Cell Rubber is an excellent gasketing, cushioning and shock absorbing material. Inert nitrogen, retained under pressure within the sealed cells, provides strength and permanent resiliency. The material is non-porous and will not absorb moisture even at cut edges. Thus, most gasket requirements can be cut from sheet stock.

If you have an application of the kind described here, look into the many advantages of RUBATEX Closed-Cell Rubber. RUBATEX is available in natural and synthetic stocks and in soft, medium and firm forms. Design, engineering and sales consultation services are available. For further information write for Catalog RBS-12-49. Great American Industries, Inc., RUBATEX DIVISION, BEDFORD, VIRGINIA.

Photo-micrograph shows how each cell is completely sealed by a wall of rubber. The material cannot absorb moisture. It has high insulating values, is highly resistant to oxidation and is rot and vermin proof.



**RUBATEX®** ***CLOSED CELL RUBBER***


# General News

(*Continued from page 272*)

this country are participating in the defense effort. GM military orders fall into three general classifications—military items in production for the armed forces before the Korean crisis and representing about 35 per cent of the total; products similar to civilian items —such as trucks, cars, bearings, and electrical equipment — accounting for about 10 per cent of the total; and strictly military combat items such as tanks, jet engines, guns, and so forth, representing about 55 per cent of total orders.

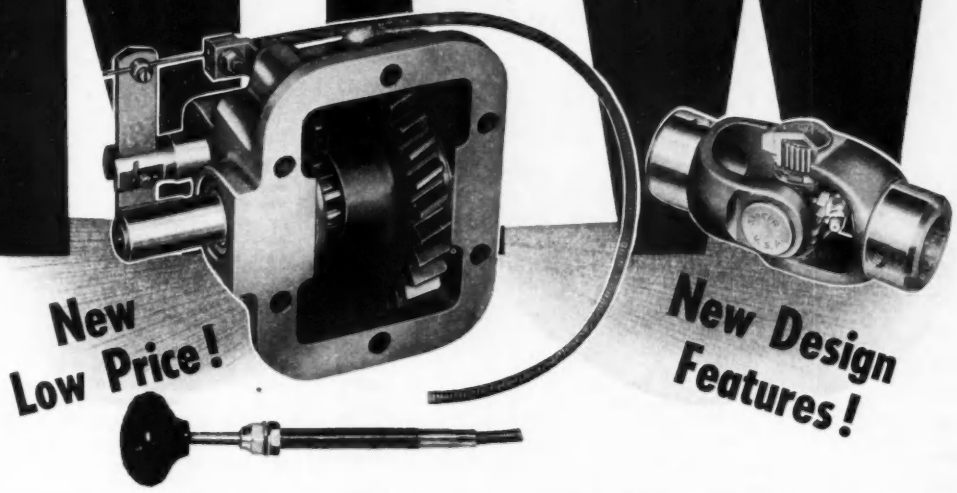
Packard has received a large order from the Air Forces to build the GE J-47 turbo-Jet engine. Exact dollar value and physical volume of the order was not disclosed, but size of the contract is indicated by the announcement that 14 months will be required for tooling up with another 10 months required before peak production can be attained. Production of the jet engine will be in Packard's Detroit area plants. It is estimated that 28,000 employes will be needed eventually for both military and automobile production at Packard. Continued production of automobiles is planned with additional facilities to be required as needed for military production. Continental Motors is negotiating for production of Pratt & Whitney nine-cyl 630 hp R1340 engines. The power plants are used essentially in helicopters and also in training planes. Other recent contracts include GM's GMC Truck & Coach Div., $11.5 million for buses; Motor Wheel Corp., $4 million for wheels and disks; Federal Motor Truck Co., $982,311 for trucks; GM's Saginaw Steering Gear Div., $1.7 million for gun parts; and Long Manufacturing Div. of Borg-Warner, $936,073 for clutch plates.

### *Automobile Repair Parts to Get NPA Priority*

Automobile repair parts makers are to be assured of enough materials to meet essential needs. NPA is setting up a so-called "M.R.O." order to provide steel for maintenance, repair, and operating parts. The parts industry advisory committee has presented NPA with an estimated list of requirements of steel, rubber, copper, and other materials needed for replacement parts this year. They said that these requirements would amount to more than 2.5 million tons this year, 12 per cent greater than in 1950 and 2½ times as much as was needed in 1941.

(*Turn to page 278, please*)

# NEW



New Low Price!

New Design Features!

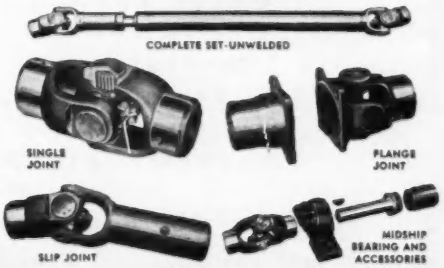
## Spicer *Brown-Lipe* Model AA Power Take-Off and Spicer 1000 Series P.T.O. Joints

The new Model AA Spicer Brown-Lipe Power Take-Off gives you all the advantages of famous Spicer engineering, Spicer precision manufacturing, and Spicer quality—plus an attractive popular price! Here are the outstanding features:

**High Efficiency and Long Life · Needle Bearings · Spur or Helical Alloy Steel Gears · Cable or Lever Control · Easily Installed · No Adapters or Filler Blocks Needed for Helical Models.**

The new Spicer 1000 Series P.T.O. Joint is a fitting quality companion for the new Model AA Power Take-Off. It is a small compact needle-bearing unit, ruggedly constructed, with high capacity. Designed for both continuous and intermittent service. Other special Spicer features include patented blowout-proof oil seal, lubrication fitting, small diameter and wide angle. Can be installed in limited operating space.

*Only Spicer offers a complete Power Take-Off and P.T.O. Joint line to meet every need—ask for Spicer engineering help.*




TRANSMISSIONS • CLUTCHES • PARISH FRAMES • SPICER "BROWN-LIPE" GEAR BOXES PROPELLER SHAFTS • STAMPINGS • FORGINGS TORQUE CONVERTERS • PASSENGER CAR AXLES • UNIVERSAL JOINTS • RAILWAY GENERATOR DRIVES • POWER TAKE-OFFS

Spicer-Built *Brown-Lipe* POWER TAKE-OFFS

SPICER MANUFACTURING
*Division of Dana Corporation*
TOLEDO 1, OHIO

# General News

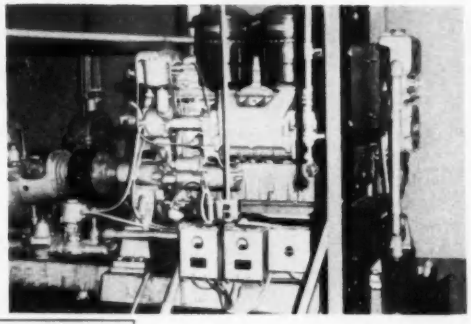
(*Continued from page 276*)

### *Vehicle Makers To Use Alternate Alloy Steel*

Because of the critical shortage of molybdenum and other steel alloy elements, the automobile industry will be using alternate alloy steels during the months ahead. An SAE committee working with the alloy steel committee of the American Iron & Steel Institute has drafted a program for substitution consisting of two principal steps, according to reports. The first is that for the next 60 to 90 days two interim steels known as 8600 and 8100 will be used. These then will be replaced by two alloy steels containing boron as a hardening agent and designated as 80B00 and 81B00. The interim steels will have a lower molybdenum content than previously, with the percentage of chrome increased slightly. The shortage of molybdenum, nickel, silicon and chrome have seriously effected the supply of alloy steels used by the industry. The alloy steels widely used in the industry went out of production March 1 with the result that leaner alloys have been substituted. Use of boron as a hardening agent in steel goes back 13 years and was used considerably during World War II.

Since the war, some automobile companies have continued to use the boron steels and have had excellent experience with them. Its use will not eliminate chrome, nickel, and molybdenum from alloys, but will greatly reduce the percentage required. Tests will be carried on during the next two or three months with the boron steel by the automobile companies. It is also reported that the first move under the upcoming Controlled Materials Plan will be made in June and will cover alloy steels. Under the proposed plan, the government will set allocations for all users, both civilian and military.

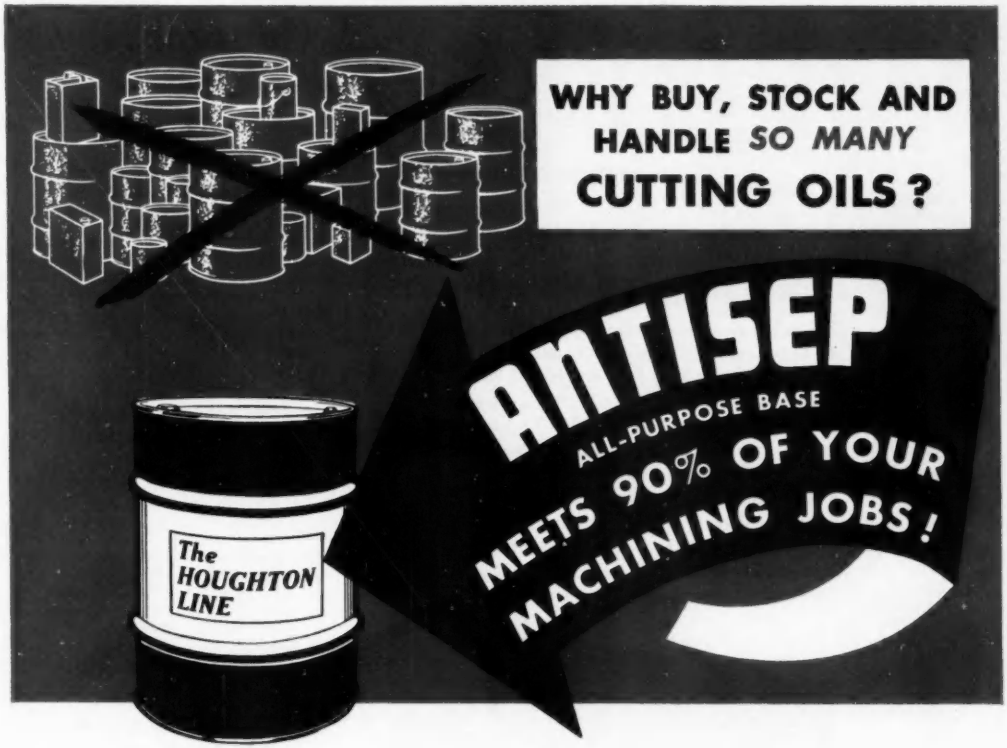
(*Turn to page 280, please*)



*The automatic auxiliary engine driven fire pump at Chicago's Midway Airport is equipped with a completely automatic Universal Engine Controller, designed and built by Synchro-Start Products, Inc., for the A. F. Barron Co., of Chicago. In the boiler room of the hangars there are three fire pumps, built by the Peerless Pump Co., which are capable of delivering two thousand gpm at 100 psi. They are driven by two 150-hp G-E motors and one GM Diesel engine. The first motor starts when the water pressure drops to 90 lb. and the second motor starts when the pressure drops to 85 lb. Below 85 lb, the automatic controller will start the Diesel engine and keep it running until the pressure is again built up to normal.*

*Should the electric power operating the electric motors be "off" or "fail" at any time the pressure in the water sys'em calls for power, the auxiliary engine driven fire pump is started instantly by the automatic controls and will be delivering its full capacity in a few seconds.*




**Just one base "across the board" for straight cutting, stamping and drawing —even automatics!**

You can mix Antisep A. P. Base with just plain water—and meet almost all of your cutting needs. The number of cutting fluids you need is greatly reduced. Minimum handling, smaller inventory and less storage space are required.

Use Antisep A. P. Base for most difficult machining operations usually reserved for straight cutting oils. Its exceptional cooling ability, safety, assurance of fine finish and speedy production enable Antisep to handle Automatics as well!

Antisep A. P. Base, high in sulphur and fatty content, is antiseptically treated to eliminate rancidity and definitely reduce bacteria growth. It cleans from work easily in any mild alkaline bath or by standard degreasers.

In tests and in use on toughest types of machining under all kinds of operating conditions, Antisep All-Purpose Base has proved to be more than satisfactory from every angle.

Ask the Houghton man to show you how you can reduce machining costs by using Antisep All-Purpose Base "across the board". Or write for bulletin and prices, to E. F. Houghton & Co., Philadelphia 33, Pa.

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E. F. HOUGHTON & CO.
PHILADELPHIA · CHICAGO · DETROIT · SAN FRANCISCO



*Ready to give you on-the-job service . . .*

# FAIRFIELD for FINE GEARS



## . . . to meet your most exacting specifications

IF you use gears in the product you make, we believe it will pay you, as it has others, to become acquainted with FAIRFIELD — the place where fine gears are produced to meet your specifications EFFICIENTLY, ECONOMICALLY! Fairfield's production facilities are unexcelled for making all kinds of high precision, automotive type gears such as are now finding wide application in all branches of industry. Every modern facility is used in the processing, checking, testing, and inspection of the product. Investigate Fairfield's facilities today! Your inquiry will receive prompt attention.






*Ask for this* **BULLETIN**

Send for a copy of this interesting, illustrated brochure, "How Fairfield Makes Gears."

*Fine Gears*
**Made to Order:**

- SPIRAL BEVEL
- STRAIGHT BEVEL
- HYPOID
- HELICAL
- HERRINGBONE
- SPUR
- WORM AND WORM GEARS
- DIFFERENTIALS

**Here are a few of the industries for which Fairfield supplies fine gears *made to order***

**Automotive • Construction Machinery • Agricultural Machinery • Aviation Equipment • Mining Machinery • Machine Tools • Oil Field Machinery Marine Equipment • Pumps and Winches Transportation**

**FAIRFIELD MANUFACTURING CO.**
**319 SO. EARL AVENUE** **LAFAYETTE, INDIANA**


# General News

(*Continued from page* 278)

### *McCulloch Motors Forms Pacific Optical*

The Pacific Optical Corp. has been formed as a new subsidiary of McCulloch Motors Corp., Los Angeles manufacturers of gasoline-engine products. The new company, adjoining the McCulloch plant, will produce plastic aircraft enclosures, plastic lenses and prisms.

### *January Vehicle Exports Show Sharp Increase*

January figures indicate that export sales have picked up noticeably for both passenger cars and trucks. Sales to foreign markets of passenger cars in January totaled 19,022 units, a sharp rise from the 12,239 exported the same month a year ago. Truck and bus exports show an even greater increase, totaling 18,351 in January of this year against 8970 for the same month a year ago. During all of 1950, vehicles exported totaled 303,675.

### *USAF Tells Boeing to Put B-52 Into Production*

The U. S. Air Force has authorized the Boeing Airplane Co. to put its newly-designed Boeing B-52 heavy bomber into production. The number of B-52s to be produced was not disclosed. They will be built in the company's Seattle plant.

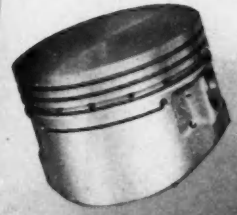
### *AMA to Protest Excise Tax Hike in Congress*

The Automobile Manufacturers Association intends to make a vigorous attack on the proposed increase in automobile excise taxes from the present 7 per cent to 20 per cent. The association has requested a hearing before the House Ways and Means Committee to protest both the proposed excise tax on passenger cars and on gasoline. The AMA points out that nearly 25 per cent of the price of a new automobile already consists of taxes and that the proposed 20 per cent excise tax would add an additional $172 to the price of the average automobile.

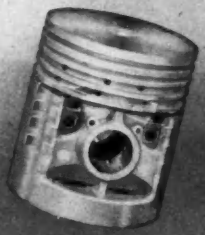
### *NPA Issues Order for Building Repairs*

Garages, filling stations, retail stores and wholesale establishments, service,

(*Turn to page* 284, *please*)



Air Craft



Nelson
Auto-Thermic



Diesel



Trans Slot



U-Slot



Heavy Duty



Wing Insert

# *Every* Type Aluminum Piston ... *One* Standard of Quality

# STERLING

**Leaders in Aluminum Pistons for 30 Years**

Sterling Engineers will work with you as they have with other leading manufacturers in developing pistons to meet your exacting requirements. Wire or phone.





Two Cycle



Steel Truss



Turbulator head



T-Slot



Trunk Type

**STERLING ALUMINUM PRODUCTS INC.**

ST. LOUIS, MO.

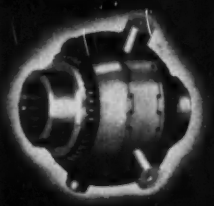
"Loafer" Wheels Don't Work!

Only NOSPIN Differentials

Insure FULL TRACTION On Military Vehicles



The Device That Puts ACTION IN TRACTION



STOPS WHEEL SPIN

TRIBUTE TO NoSPINS

"During the Guam campaign and immediately after occupying the island, all roads became quagmires, and for days only vehicles with NoSPIN Differential could navigate through the bottomless seas of mud . . . personally saw innumerable trucks pulled off the beaches by trucks equipped with NoSPIN Differentials.

"It is the opinion of the undersigned, that all military vehicles assigned to a combat zone should be equipped with NoSPIN Differential."

*Names for this and other quotations available on file.*

## NoSPIN'S Make "Loafer" Wheels Work!

They require all wheels, under power, to pull to the limit of accumulated traction available to each.

## NoSPIN'S Create World's Best Performing Vehicles

They deliver cargoes and personnel farther, safer, and more efficiently under rugged combat conditions.

A fifty year dream of automotive engineers has been realized. NoSPIN Differentials have provided Full-Traction for commercial vehicles in ever increasing numbers for eleven years.

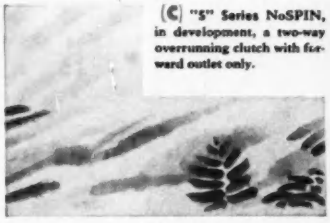
Army Field Forces can have insurpassable wheeled-vehicles in all categories by the adaptation of NoSPIN Differentials to the driving axles and transfer cases of each.

A simple engineering analysis of existing vehicles by our engineers will determine practicability of installing NoSPIN Differentials as replacement assemblies. Only nominal engineering consideration is required during the design period of new vehicles to secure the maximum in full traction and operational performance.

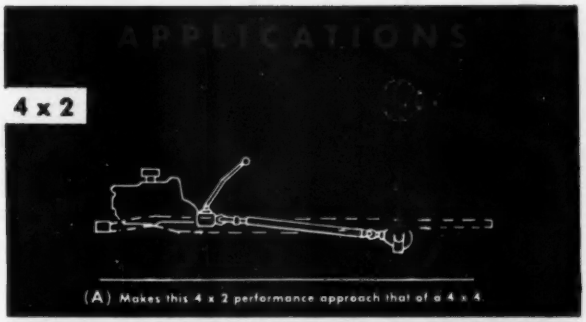
### All NoSPIN Differentials are Fully Automatic in Operation

(A) Standard type NoSPIN Differentials are for use in axles of medium and heavy wheeled vehicles.

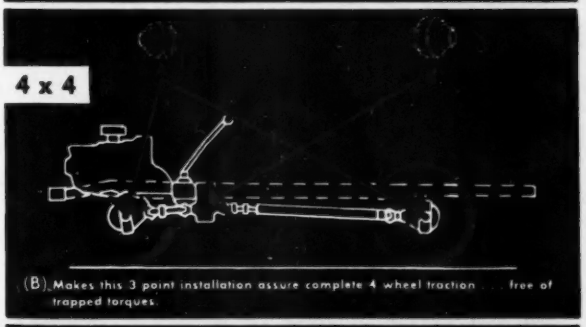
(B) Silent type are especially designed for transfer cases, drop boxes and driving axles of light weight trucks and passenger cars.



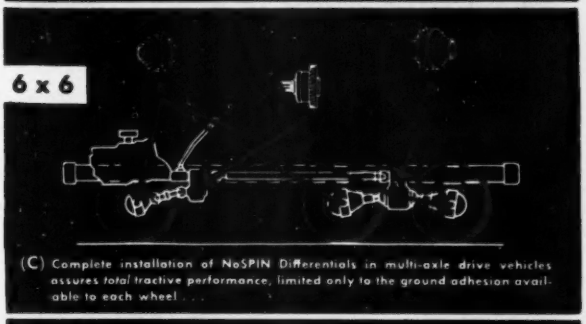
(C) "S" Series NoSPIN, in development, a two-way overrunning clutch with forward outlet only.



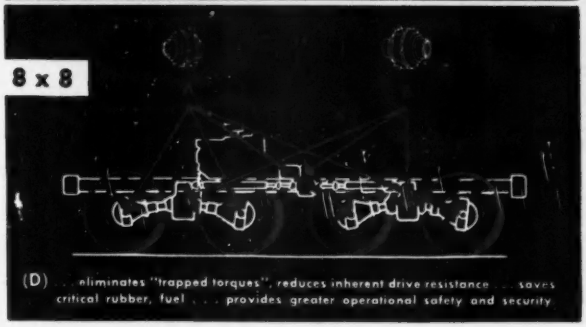

(A) Makes this 4 x 2 performance approach that of a 4 x 4.




(B) Makes this 3 point installation assure complete 4 wheel traction . . . free of trapped torques.




(C) Complete installation of NoSPIN Differentials in multi-axle drive vehicles assures *total* tractive performance, limited only to the ground adhesion available to each wheel . . .




(D) . . . eliminates "trapped torques", reduces inherent drive resistance . . . saves critical rubber, fuel . . . provides greater operational safety and security.

# DETROIT AUTOMOTIVE PRODUCTS CORPORATION

***Mfgr's. THORNTON four rear wheel DRIVES and LOAD-BOOSTER third axles for trucks***

**8701 Grinnell Avenue** **Detroit 13, Michigan, U. S. A.**

# General News

(*Continued from page* 280)

and most other kinds of business are now entitled to use self-certified priority ratings (DO-97) in order to obtain construction and other materials needed for maintenance, repair and operation of their businesses. Issuance of Reg. 4 by the National Production Authority permits broad use of the newly established rating to obtain such materials.

In issuing this long-awaited MRO order, the NPA said that while defense production is still of first importance, "it is vital that we maintain a strong civilian economy." Postponement of needed repairs, the agency said, results only in greater needs at a later date with possible loss of production. For this reason, the order is virtually all-inclusive in scope—applying also to service and other business establishments, farms, hospitals and institutions, schools and churches, and to federal, state, and local governmental agencies.

Use of the rating is simple. No approval by NPA is necessary so long as is is used in accordance with Reg. 4. It is certified by writing on the order or an attached sheet of paper "DO-97, Certified under NPA Reg. 4" with the signature of the proper official of the business firm or establishment.

It is entirely up to a business whether or not it uses such a rating. But once the establishment uses the rating authority, even in a single instance, that concern is then bound by the restrictions laid down in Reg. 4. This means that its MRO purchases in any one quarter may not exceed a fourth of the total of such procurements during 1950 (exceptions are allowed for seasonal businesses). But hardship applications may be filed if the allowed quota is too small. Small businesses are permitted to extend DO-97 ratings for MRO purchases up to $1000 a quarter without regard to quota restrictions.

This is the first permitted use of DO ratings for other than strictly defense and supporting programs. NPA says the MRO order will not affect the defense program "in any manner," holding that such certification will take only a negligible percentage of total production. Some sources, however, see the order as starting a possible breakdown of the priority system, possibly forcing establishment of CMP before the scheduled July 1 date.


Highest Precision

HARDENED & GROUND PARTS

THE ball stud shown here is a perfect example of the precision methods and quality material that go into the production of all Brown Hardened and Ground Parts. Twelve separate operations are employed to produce this vital part. Every feature about this ball stud *has* to be right—every feature *is*. It has strength, wear resistance, precision fit, true-ground spherical and tapered surfaces, close inspection and strict uniformity.

Brown Hardened and Ground Parts have been serving the automotive industry for over 40 years. We refer you to any of our long list of satisfied customers. For information pertaining to your own requirements, simply write or wire.

Henry W. Brown

PRESIDENT



Parts Include . . .
King Pins
Shackle Bolts
Shackle Pins
Brake Anchor Bolts
Countershafts
Idler Shafts
Stub Axle Shafts
Steering Ball Bolts
Beam Balls and Bolts
5th-Wheel Rocker Shafts
Wheel Studs
Water Pump Shafts
. . . anything in the hardened and ground line, of any analysis steel, up to 4¼" diameter.

THE BROWN CORP.

213 BELLEVUE AVE. SYRACUSE, N. Y.

C. H. Eckert, 3407 Clarendon Rd., Cleveland • W. F. Boring, 4716 Bellner Rd., Detroit • H. C. Sanderson, 5005 N. Clark St., Chicago • Harry J. Winchester, 1704 Gerton, Fort Worth • Johns Wilkins & Co., 1440 N. Spring St., Los Angeles, Calif. • John B. Hunt, 5011 S.E. Yamhill St., Portland, Ore.


## *Young Radiator Licenses Output in Canada of Certain Products*

Certain selected types of heat transfer products of the Young Radiator Co., Racine, Wisc., and Mattoon, Ill., are now being manufactured in Canada under special license arrangements granted James B. Carter, Ltd., Winnipeg. The announcement was made jointly by Fred M. Young, president of Young Radiator, and J. B. Carter, president of the Canadian firm. Carter has been granted manufacturing privileges to certain Young designs and engineering specifications and will produce heat transfer units exclusively for the Canadian market.

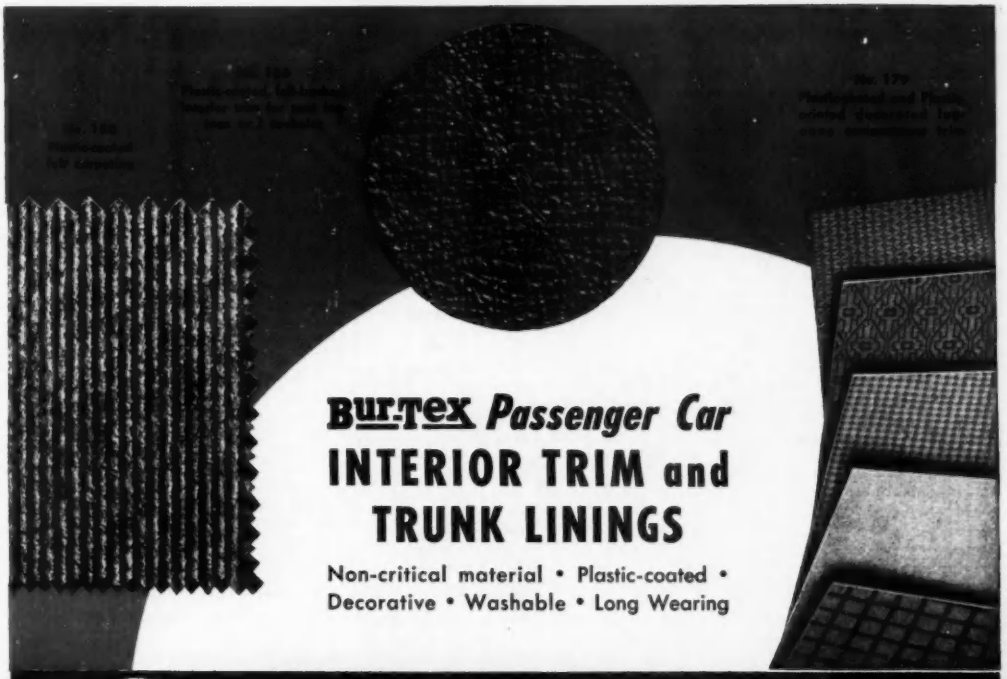
## *Eaton Mfg. Co. to Build New $675,000 Plant*

The Eaton Manufacturing Co. will begin construction in July of a new forge and heat treating plant at Battle Creek, Mich. The $675,000 project is part of the $5 million expansion program the company has scheduled for this year.

## *Ford's West Coast Purchases Totaled $76 Million*

Ford Motor Co.'s purchases on the West Coast totaled $76,029,043 for 1950 for the West Coast's plants. Total figures for 1951 are expected to reach about $100 million, according to company spokesmen.

(*Turn to page* 286, *please*)



**Bur-Tex *Passenger Car***
**INTERIOR TRIM and TRUNK LININGS**

Non-critical material • Plastic-coated •
Decorative • Washable • Long Wearing

Bur-Tex

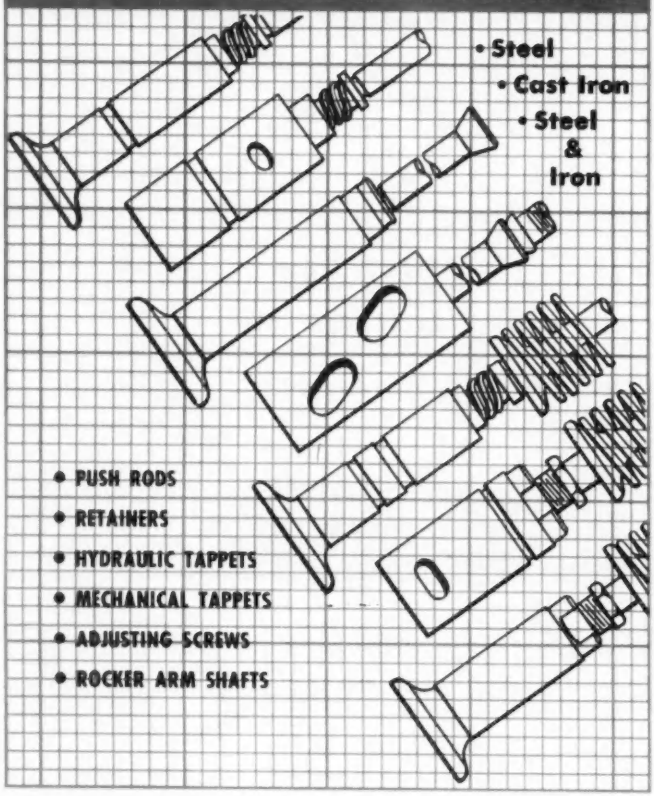
**BURLINGTON MILLS INCORPORATED**
BURLINGTON • WISCONSIN
DETROIT OFFICE: 504 Stephenson Building • TRinity 3-0762

**Bur-Tex *Truck and Bus***
**INSULATION and TRIM**

Non-critical material for headlinings,
insulation panels, gaskets and splash guards

No. 116
Asbestos Insert
Firewall Felt

"CHICAGO"
tappets for the valve trains of today and tomorrow




Connecting Rod Bolts.....Hydraulic Cylinder Pistons
Cylinder Head Studs.....Cylinder Head Cap Screws
Main Bearing Studs.....Main Bearing Cap Screws
Flywheel to Crankshaft Screws.....Diesel Energy Cells
Wheel Bolts and Studs.....Differential Carrier Screws
Oil Pump to Distributor Shafts.....Remote Control Levers
Automatic Transmission Valves.....Water Pump Shafts

Special Screw Machine Parts
1/16" to 5" Diameter •
Cap Screws • Set Screws •
Nuts • Studs • Taper Pins •
Socket Screw Products •

The CHICAGO SCREW COMPANY
3701 WASHINGTON BLVD.
BELLWOOD, ILL.
Established 1872


# General News

(*Continued from page* 284)

### *Wellman to Build New Plant in Bedford, O.*

The S. K. Wellman Co. will build a $600,000 plant in Bedford, O. The firm has acquired options to buy about 83 acres of land. The expansion has been made necessary, S. K. Wellman, president, stated, by the steadily increasing demand from both civilian and military sources for the company's friction linings used on clutches and brakes. The new plant will be a one-story structure of 60,000 sq ft, with about 90 per cent of the area devoted to manufacturing. When completed next summer, the plant will permit the company's present production of bimetallic materials to be doubled. Wellman will continue to have its main office and plant in Cleveland. Total expenditures in the Bedford plant for equipment and factory is expected to total over $1 million.

### *Middlekamp Appointed to Government Post*

Lt. Col. John H. Middlekamp, well-known to the automotive industries as director of the automotive division of the War Production Board during World War II, has again been called on to fill an important post in Washington. He has been appointed consultant and specialist for the street and highway division of the Defense Transport Administration. He has been a vice president of Mack Trucks, Inc., since the end of the war, and is recognized as an authority on truck and bus production.

### *French Show Interest in Flexibly-Mounted Wings*

Showing its interest in the Rey system of flexibly mounted wings, the French Air Ministry has placed an experimental order with the inventor of this device. Instead of a rigid attachment, the inboard portion of the wings is fixed but the main portion has an elastic attachment to this, which allows a maximum movement of about 27 in. at the wing tip. The device consists of a shaft mounted in an oblique rubber bushing. The Rey device has been fitted in a small plane and flown experimentally before technical members of the Air Ministry who were sufficiently impressed to recommend a subvention to continue developments.

### *Little Definite on Alternates to Critical Materials*

Although the restrictions on critical materials are plaguing all producers,

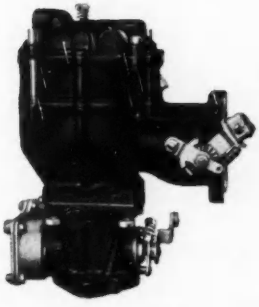
(*Turn to page* 288, *please*)

# Will he Buy Your Truck Next Time?



IT ALL DEPENDS ON PERFORMANCE and PERFORMANCE DEPENDS ON

# Zenith CARBURETORS



No manufacturer could long exist in the competitive commercial vehicle field without drawing heavily on previous owners for new vehicle sales. It is perfectly obvious, no owner would buy the same make vehicle again and again unless it has delivered satisfactory performance. Therefore, it is just good business to see that every component contributes its share toward building owner loyalty. That's why manufacturers whose vehicles are Zenith* equipped measure carburetion costs in lasting terms rather than initial expense. In the field of heavy-duty carburetion, one name, Zenith, has stood for lasting satisfactory performance for over a quarter of a century. Zenith's rugged construction, strong idling, freedom from stalling and response to every demand make it the engineers' choice. For good will, it's good business to specify the best—Zenith for lasting performance.

*REG. U.S. PAT. OFF.

**ZENITH CARBURETOR DIVISION OF**
**696 Hart Avenue • Detroit 14, Michigan**

Bendix
AVIATION CORPORATION

Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, N. Y.

# General News

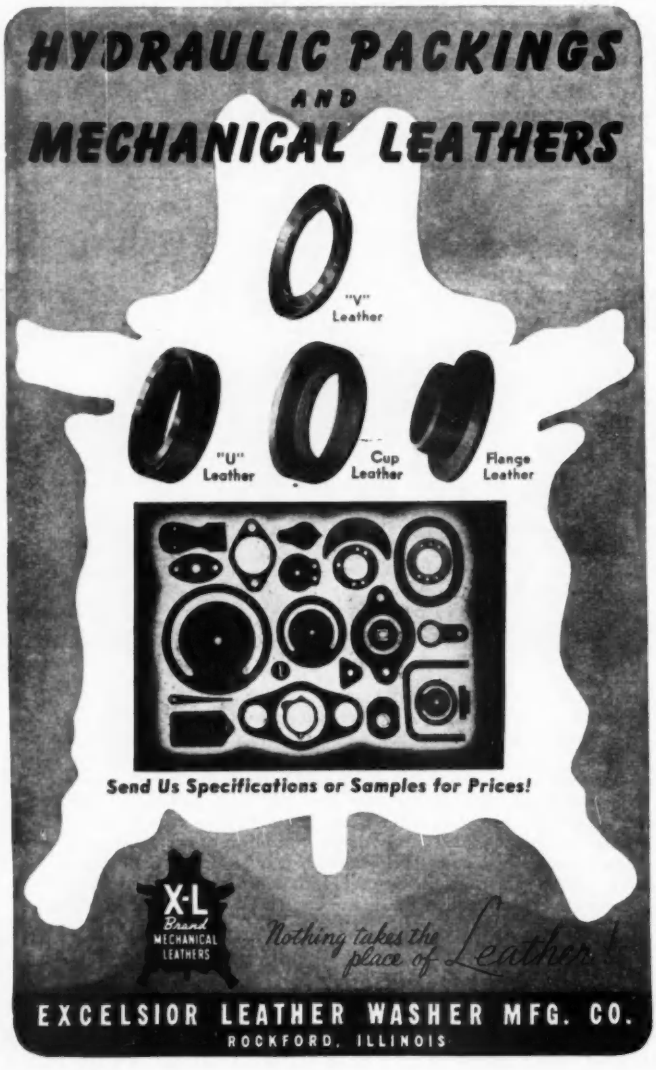
(*Continued from page* 286)

little has crystallized as to alternate materials at this writing. To be sure most organizations have been studying the problem and must be prepared with practical solutions. What makes the situation so uncertain, however, is that government has not yet produced a definite yardstick as to the overall effect of these restrictions. For example, the additive effect of the reduction on copper, aluminum, and steel—when fully known—will definitely reduce the output of cars and trucks, regardless of alternate materials. Any further restrictions will simply add to the percentage reduction in output.

Even with a reduction in output of cars and trucks, the pinch on the use of nickel, molybdenum, tungsten, zinc, aluminum, and other critical alloys will affect the situation seriously. One of the biggest headaches is electroplating. While some decorative parts such as radiator grilles can be pleasingly pained, functional parts such as bumpers and bumper guards simply will not do the job without electroplate.

Taking nickel and moly out of alloy irons poses a neat problem for the foundry metallurgist. Some metallurgists see in the picture an opportunity for exploiting certain additives such as boron not only in steels but in alloy irons as well. Boron has been used to some extent in recent years but will require considerable experimental work to place the technique on a paying commercial basis. Apparently the same applies to the possibility of increasing the percentage of silicon in steel compositions.

It seems logical to assume that hardenability will become the basic means of specifying structural steels as the current situation worsens. It is not unlikely, according to some expert opinion, that the current series of SAE steels wil gradually take on the characteristics of the NE-series of the last war. However, the reliance upon hardenability rather than chemistry should make the problems of selection and utilization much simpler than before.




### Goodyear Net Second Highest in History

The Goodyear Tire & Rubber Co., last year, had its second best year in history, earning a profit of $35 million on an all time high of $845 million in sales. Profit was up about 57 per cent over the 1949 earnings of $20.2 million.

### Electric Storage Battery Has New Plastic Separator

A new plastic battery separator has been announced by the Electric Storage Battery Co. Called Pormax, the new plastic separator is a polyvinyl chloride synthetic, and is said to be made solely from raw materials found in abundance within the United States. The Pormax separator is claimed to be very porous, non-brittle, and acid-resistant, and to substantially increase battery life.

### Synchro-Start Builds New Plant

Synchro - Start Products, Inc., is building a new factory in Skokie, Ill., and the first unit was ready for occupancy March 1. It is near residential areas, supply centers, and is serviced by four convenient transportation lines. The one story building will house the executive and general offices and final assembly with fabrication to remain in other plants until additional units can be built. Air-conditioning has been installed, together with an automatic oil-fired radiant floor heating system. Showers and dressing rooms are provided, and selected commercial and recorded music is brought into the working area over speakers.

(*Turn to page* 290, *please*)

# You Can STEP UP Production



**ALL PRECISION MACHINING ON THIS FLYWHEEL, AS INDICATED BY THE HEAVY LINES IN THE DRAWING,**

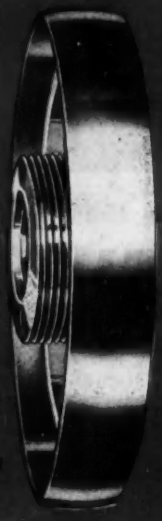
**— INCLUDING THREADING**

**PLUS GENERATING THE 1" RAD. ON THE O. D. WITH SINGLE POINT SLIDE TOOL**

**ARE COMPLETED AT THE PRODUCTIVE RATE OF**

***50 PIECES PER HOUR***

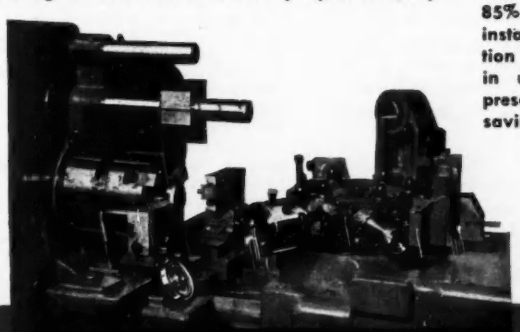
ACTUAL SIZE



ZINC (SAE 925)

## ON THE POTTER & JOHNSTON No. 3U

When you're swamped with demands for stepped-up production on forgings and castings up to 6" in diameter, you can rely on the 3U to turn out the work faster, better, and with fewer rejects. The 3U does it by combining cuts to avoid secondary operations, by effectively reducing machining times, and by eliminating all unnecessary work handling. Set up for your jobs with experience-engineered P&J Tooling, the 3U is the ideal machine for this class of work — as illustrated by the above production record based on 85% efficiency. That's why it's to your advantage to install modern P&J Automatics either on new production or as replacements for tired, slow equipment now in use. Send your multiple-operation problems, present or anticipated, to P&J for productive, time-saving Tooling recommendations.



**3U *Speed-flex* AUTOMATIC**

**POTTER & JOHNSTON CO.**

PAWTUCKET, R. I.

subsidiary of PRATT & WHITNEY

Division Niles-Bement-Pond Company

P&J



***Even the "health department" approves these***

# CLEAN, SMOOTH CASTINGS!



Absolute cleanliness is a special requirement for electric motors used in dairies and food-processing plants. Inside and out, these motors must be smooth and clean, completely free from nicks or blemishes that might serve to hold dust or dirt. Every motor is subject to frequent, rigid inspections by various health and sanitation authorities.

In The Master Electric Company foundry, Buckeye air grinders are used in the preliminary stages of production on Master Sanitary motors. On bearing housing castings, for example, a Buckeye pencil grinder, equipped with a special extension collet, gets into every curve and crevice of these castings, assures a perfectly smooth, clean job.

Cleaning the tops, bottoms and the numerous fins on castings for Master Fancooled motors is another Buckeye air tool job in this foundry. Despite the limited space between the fins on these castings, flexible, easy-to-handle Buckeye vertical sanders have cut the time required for this difficult cleaning operation.

Buckeye grinders and sanders do the difficult jobs in less time, at lower cost. We'd like to prove that . . . in your plant . . . on your job. A Buckeye Tools Field Representative will gladly arrange a test, without obligation.

**Buckeye Tools**
CORPORATION
DIVISION 21 • DAYTON 1, OHIO

Portable Air and Electric Tools for Industry


# General News

(*Continued from page* 288)

### Carboloy to Build New Mich. Plants

Carboloy Co. Inc., subsidiary of General Electric Co., is planning to spend $2.8 million expanding one Detroit plant and building a new one at Edmore, Mich. About $800,000 will be spent expanding the present plants in Detroit to provide 13,000 sq ft of additional area and increase facilities for manufacture and storage of hydrogen.

Construction and equipping the new plant at Edmore will cost about $2 million. The plant will have approximately 45,000 sq ft of production space and will provide complete tungsten carbide processing facilities. When the expansion program is completed, half the company's carbide metal output will be allocated directly for defense work under government contract, with the other half going to industry for production of military and essential goods.

### Pratt & Whitney Jet Output Passes 1000 Mark

Turbojet production at Pratt & Whitney Aircraft passed the 1000 engine mark during January. The 1000th jet engine built in the East Hartford, Conn., plant was a J-42 Turbo-Wasp with a maximum thrust rating of 5750 lb static thrust. It was shipped to Grumman Aircraft Engineering Corporation at Bethpage, L. I., N. Y., for installation in one of its Panther F9F-2 jet fighters.

### NPA Issues Two Orders Stockpiling Tools

The National Production Authority has issued two orders putting into effect its previously announced intention to stockpile machine tools. Order M-40 sets up a system under which the General Services Administration places orders with machine tool builders for balancing, boring, buffing, filing, milling, riveting, sawing, welding and shearing machines, hammers, planers and slotters. The purpose of the program is to gain time for tooling military projects by having on hand a stockpile of machines and equipment, eliminating the normal time lag required for building machine tools after a military contract is awarded. NPA says that 70 per cent of the country's machine tool production is to be made available for filling military needs. The government's pool orders, plus DO defense priorities orders, are to be filled from the 70 per cent quota, with 30 per cent of production available to purchasers with rated or nonrated orders. Dollar volume of the government pool orders has not been

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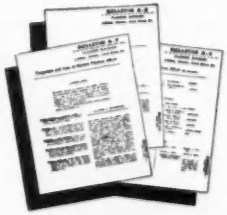


*High dielectric strength of Plaskon Alkyd—more than 550 v./mil.—gives parts molded from it an important advantage where high voltages must be restrained. Rotor switches and insulators for the Harman & Collins Magneto shown, molded of Plaskon Alkyd by Prisk Plastic Molding, Alhambra, Calif.*

# 25,000 volts kept on the right path by a new plastic suitable for automotive applications!

It takes a plastic of unusual dielectric strength, arc resistance and dimensional stability to harness and keep a 25,000 volt output "on the right path." That's why Harman & Collins chose Plaskon Alkyd for insulators and rotors in its 8R-101 Magneto! Harman & Collins reports that "other plastic materials previously tried were completely inadequate for this application."

Plaskon Alkyd, developed by the Plaskon Division of Libbey•Owens•Ford, is a thermosetting plastic molding compound which offers the automotive industry unusual electrical and mechanical properties for better performance in finished products. It can be molded *faster* at lower pressures on conventional or fully automatic machines, utilizing less expensive dies.



We will gladly send you literature describing the many desirable properties of Plaskon Alkyd. Here is information which offers evidence that parts can be molded *better and faster, with lower tooling cost*—using Plaskon Alkyd.

**mold it better and faster with**

**PLASKON DIVISION • LIBBEY • OWENS • FORD GLASS COMPANY**
Toledo 6, Ohio

*In Canada:* Canadian Industries, Ltd., Montreal, P. Q.
*Branch Offices:* Boston, Chicago, New York, Rochester, Los Angeles
*Manufacturers of Molding Compounds, Resin Glues, Coating Resins*

PLASKON.
ALKYD

# General News

(*Continued from page* 290)

disclosed, but has been estimated to be between $300 million and $600 million. NPA has set up order M-41 which provides the system of controlling delivery of pool order machine tools from GSA to defense contractors.

### Decorative Parts Problem Confused

Because of the delays in establishing precise ground rules for the use of critical materials, producers in the automotive industries face a confusing picture with respect to decorative parts, particularly those requiring protective chromium plate. Only a short time ago one of the major producers of body hardware was all set to introduce a new electroplating procedure comprising a bright zinc plate with a coating of zinc chromate and a protective skin of a special transparent synthetic resin finish. The resulting finish had the appearance of burnished silver with not quite the same reflective quality as chromium.

Since then we have been told that the company has decided to retain chrome plating since chromium is still available for the purpose. They intend to apply a bright copper plate directly on the parent metal, then the flash of chromium over the copper. The intermediate coating of nickel, considered so essential ordinarily, has been entirely eliminated. Whether or not this type of electroplate would be suitable for functional parts such as bumpers and bumper guards remains to be demonstrated.

### Steel Cut to Reduce Output of Studebaker of Canada

Production of the Studebaker Corp. of Canada, Ltd., Hamilton, Ont., Canada, will be affected by a U. S. order reducing by 20 per cent steel for passenger cars and consumer durable goods. D. C. Gaskin, vice president and general manager of the Studebaker plant said that the company had to import basic steel requirements for body stampings from the United States. In any case the company expected a cutback when the federal government curbs passenger car output in Canada. An order expected from Ottawa will cut other items which Studebaker buys in this country.


CUT COSTS . . . FASTEN "ON THE DOUBLE" with the Chicago "214" DOUBLE RIVET SETTER




The "214" automatically feeds, inserts and clinches two rivets at a time . . . with speed that may mean a big saving in your fastening costs.

14" throat makes large assemblies easy to handle. For tubular rivets as large as 9/64", or less in length. Quick Change Rotary Type Hoppers and Raceways permit a 5-minute changeover to rivets of different size. Adjustable anvils and riveting centers add to its versatility.

Ask us how the "214" can help you cut costs. Send a sample of your problem assembly (or blueprint) for a Free fastening analysis.

FREE CATALOG

contains valuable engineering information and rivet specifications plus illustrated descriptions of 26 Chicago Automatic Rivet Setters.

Chicago Rivet & MACHINE CO.

9612 West Jackson Boulevard, Bellwood (Chicago Suburb) Illinois

Branch Factory: Tyrone, Pa.


## Lincoln Won '51 Mobilgas Economy Run

Lincoln was the sweepstakes winner in the 1951 Mobilgas Economy Run, in competition with 32 1951 stock four-door sedans representing every American automobile manufacturer except Buick, Oldsmobile and Pontiac. The Lincoln set a ton-mile mark of 66.484 and an actual mpg average of 25.448 for the 840-mi run from Los Angeles to Grand Canyon, Ariz.

The average mpg for the 32 entrants, ranging from the Willys Jeepster to the Chrysler Imperial was 23.923. In 1950 the combined average was 22.074. All cars finished within the required time of 20 hr 55 min. Average mph for all entrants was 40.487.

Cars competed not only for the overall sweepstakes award, but also in 11 classes based on price. So that each car was matched only against others within its own price range. The "ton-mile-gallon" rating under which the winners were determined is used to insure equal fairness to every entrant, regardless of size and weight. By this method, the weight of the car and passengers is multiplied by the mileage of the course and divided by the number of gallons of gas used.

Complete results follow giving first, ton miles per gallon, second, miles per gallon for each price class:

Class A $1400-$1750 Ford Eight 54.587 and 25.994.

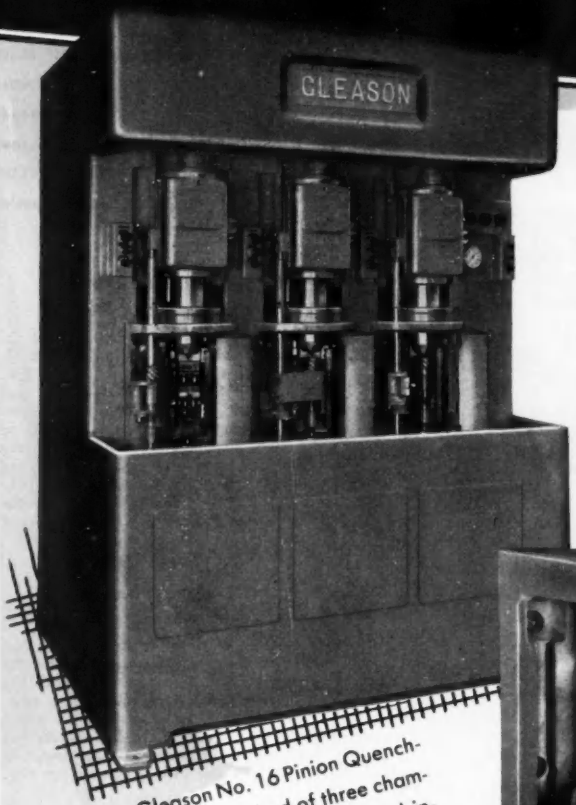
Class B $1751-$1950 Studebaker Commander 58.173 and 28.001.

Class C $1951-$2175 Mercury 59.861 and 25.945.

Class D $2176-$2450 Packard "200" 53.020 and 22.023.

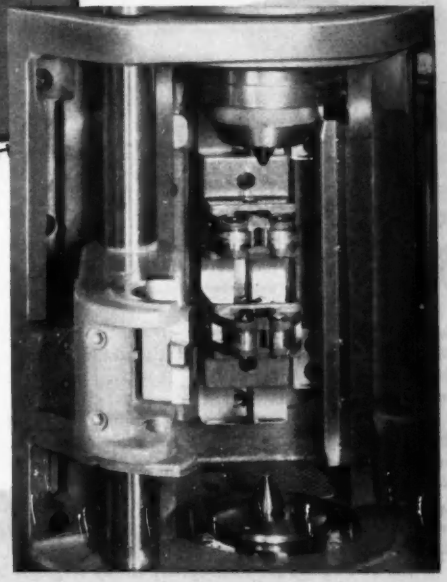
(*Turn to page* 294, *please*)

# COMPLETELY AUTOMATIC PINION QUENCHING




## WITHOUT DISTORTION

An entirely new design for pinion quenching . . . with each individual unit operating independent of the others to assure continuous fast production of *straight* hardened pinions . . . simple to operate . . . completely automatic . . . this machine eliminates distortion . . . further straightening of shafts becomes unnecessary.



The new Gleason No. 16 Pinion Quenching Machine is comprised of three chambers. Each pinion may be hardened independent of the others through a completely automatic operation from the time the pinion is placed into the loader jaws until it has been rotated on centers against rollers during quench and returned to unloading position.

BUILDERS OF BEVEL GEAR MACHINERY · GLEASON · FOR OVER EIGHTY-FIVE YEARS ·

*Write for more information on this modern way of pinion quenching.*

**GLEASON WORKS**

1000 UNIVERSITY AVENUE · ROCHESTER 3, NEW YORK

# forgings by KROPP



Forged axle for farm tractor. Length 16½" Weight 11½ pounds.



The basic need of humanity is food . . . ever more food for an increasing world population. The wide-spread use of mechanized farm equipment, along with more intensive farming and improved methods, has enabled the farmers of America to supply that demand. Modern farm machinery . . . tractors, trucks, combines, reapers . . . are the "machine tools of agriculture". . . making possible mass-production on the farm.

Agricultural machinery must be built for abusive service – of parts that must not fail – tough *forged parts* to withstand severe shock and strain. In *America's Number One Forge Plant* skilled hammermen and die makers are producing *forgings at their best* . . . parts for many of the country's leading agricultural machinery builders. Kropp forgings are made, installed and forgotten . . . giving dependable, long-time service to the farms of America.

Wherever forgings are used, specify *Kropp forgings*. Write, wire or phone your inquiry.

**KROPP FORGE COMPANY**
5301 W. Roosevelt Rd., Chicago 50, Ill.

Are you receiving "FORGINGS" . . . . the KROPP publication for industry? If you want to keep current on forging facts, send us your name and address and ask for "FORGINGS".


# General News

(*Continued from page* 292)

Class E $2451-$2700 Lincoln 66.484 and 25.445.

Class F $2701-$3000 Cadillac "61" 55.492 and 21.719.

Class G $3001-$3300 Chrysler Imperial 59.457 and 21.178.

Class H $3301-$4000 Cadillac "60" Special 58.795 and 21.979.

Class I $4001-$6000 Chrysler Imperial 63.289 and 19.206.

Special 4-cyl lightweight Henry J 49.153 and 30.109.

Special 6-cyl lightweight Nash Rambler 53.489 and 31.053.

### North American Netted $8 Million in 1950

North American Aviation's net income for the fiscal year ended Sept. 30, 1950, was $8,086,255 after taxes. This compared with $7,306,409 for the 1949 fiscal year, according to J. H. Kindelberger, board chairman. Backlog or business reported at the end of the fiscal year was $311 million. Sales and other income for the year totaled $143,268,418 against $124,734,509 for the 1949 year.

### Cleveland Abandons National Air Race

With the Cadillac tank plant occupying the area formerly used for the National Air Races in Cleveland, the races will not be held there this year. Plans for the event have been abandoned by race officials, but efforts are being made to locate suitable facilities for staging the race in some other city.

### Axelson to Build New West Coast Plant

Axelson Manufacturing Co., manufacturer of aircraft parts, oil pumping equipment and heavy machinery, announced plans to build a new plant at Montebello (Los Angeles area), Calif. Construction will be on a 44-acre site and is scheduled to begin in February. The firm has a current backlog of $8.6 million business, according to company officials.

### Seiberling Rubber Net Up Sharply

Seiberling Rubber Co. has reported a net profit of $1.8 million for 1950 after a loss of $359,351 in 1949. Net sales were up 51 per cent over the previous year to $38.3 million. Sales and earnings last year were at an all time high level, although net profit was reduced $440,000 by excess profits taxes.

. . . Write today for your copy of this helpful fact-file . . .




Here's the answer to your need for contract DEFENSE manufacture of mass produced—

STAMPINGS
WELDMENTS
SPOT WELDED ASSEMBLIES
PRESSED STEEL SHAPES

in all types of metal . . .

BRANDT
BALTIMORE

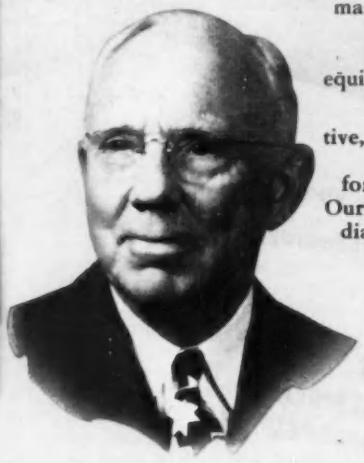
CHARLES T. BRANDT, INC.
1700 Ridgely Street, Baltimore 30, Md.




# Our First Forty Years...

We are celebrating our Fortieth Anniversary this year with some pride of accomplishment and with a good deal of gratitude to the people who have made this possible.

These include our thousands of friends throughout North America and beyond who have bought our diamonds and diamond products; our many suppliers whose cooperation is so essential, and our company "family" of workers in our several plants and field offices who make, distribute, and service our products.



We have seen this family grow from our original group of three beginners to an organization of nearly two hundred including many outstanding specialists. And, with them, we have graduated through the years from an unheated garage (with practically no equipment) to the most modern of plants and the finest of equipment, much of it exclusive.

Together, we have seen the diamond tool changed from a primitive, handy-man product to a thoroughly scientific tool "engineered to the job" in accordance with the principle which we pioneered forty years ago and developed into recognition throughout industry. Our most recent important achievement has been the development of diamond drill bits for drilling oil wells—the first to prove successful.

To all of these friends—customers, suppliers, co-workers—our sincere thanks.

WHEEL TRUEING TOOL COMPANY

Harry D. Wallace

*President*



**ROBERT S. FOWLER**
First Vice President



**HAROLD E. ROBISON**
Treasurer



**JAMES H. DILLOW**
Secretary



**DONALD J. WALLACE**
Vice President
Manufacturing



**HARRY W. WALLACE**
Vice President
Diamond Drilling Division



**PATRICK ADAMSON**
Sales Manager
Diamond Drilling Division




## DIAMOND PRODUCTS AND SERVICES

- Diamond Bits for Oil Field Drilling
- Diamond Drill Bits for Mining
- Diamond Reaming Shells
- Prompt Bit Resetting Service
- Complete Stock of Industrial Diamonds
- Tru-Line Diamond Tools
- Single Point Dressing Tools
- The Diamond-Miser
- Radius Forming Diamond Tools
- Diamond Tools for Thread Dressing
- Polished Diamond Contact Points
- Turning and Boring Tools
- Diamond Impregnated Tools
- Diamond Powder
- Special Diamond Tools

# WHEEL TRUEING TOOL COMPANY

*Established 1910*

3200 West Davison Avenue • Detroit 6, Michigan

WHEEL TRUEING TOOL CO. OF CANADA, LTD.
575 Langlois Avenue
Windsor, Ontario, Canada

WHEEL TRUEING TOOL CO. OF NEW JERSEY
33 West Street
Bloomfield, N. J.



Wheel Trueing Plant in Windsor, Ontario



Wheel Trueing Plant in Bloomfield, N. J.

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| Odessa | Mt. Pleasant | |

FOREIGN AND EXPORT:
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JOY MANUFACTURING CO.
Sullivan Division, Michigan City, Indiana

JOY MANUFACTURING CO.
General Offices: Pittsburgh, Penna.

*Branch Office*—WHEEL TRUEING TOOL CO. OF CANADA, LTD.
Kirkland Lake, Ontario

MINE SUPPLY, INC.
Vanadium, New Mexico

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ARTHUR J. BAEHR
Chagrin Falls, Ohio

H. E. LINNEY COMPANY
Oakland 18, California

LOY WRIGHT
Houston 11, Texas

WALTER F. GREENE & ASSOCIATES
Indianapolis 8, Indiana

WALTER F. GREENE & ASSOCIATES
Dayton 2, Ohio

WILLARD R. GATES
Fennville, Michigan

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St. Louis, Missouri

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Wheel Trueing Tool Co. of N. J.
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Bloomfield, N. J.

DIXIE TYPE & SUPPLY COMPANY
Birmingham 8, Alabama



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Vice President and Sales Manager (New Jersey)



**HAROLD B. ZIEGLER**
Vice President Manufacturing (New Jersey)



**LEO CATALLO**
Superintendent Diamond Drilling Division



**TAD BEMBEN**
Plant Engineer



**ALDRED W. BARKLEY**
Purchasing Agent Diamond Drilling Div.



**LARRY CARTER**
Supervision, Diamond Sorting

# Defense Contracts

(Continued from page 182)

**Bendix Avia. Corp., Pacific Div., Hollywood, Calif.**
Actuator assembly—365—$60,492
Repair parts for electric meters—1,408—$29,057
Parts for communication systems—3,299—$39,011
Valve & actuator assys.—455—$30,097
Repair parts for communication equipment—5,497—$59,886
Valve & cylinder for aircraft—267—$71,964
Valve assy.—$32,719

**Bendix Aviation Corp., Detroit**
Carb. screws, kits—18,641—$140,530
Carburetor assy.—2,000—$39,860
Carb. screws, kits—18,641—$140,530

**Bendix Avia. Corp., Skinner Purifiers Div., Detroit**
Purifier parts—4,000—$30,400

**Bendix Aviation Corp., South Bend, Ind.**
Speed density metering unit—$117,997
Bushing, gasket—31,700—$262,436

**Bendix Aviation Corp., Teterboro, N. J.**
Generator—133—$76,452
Synchros—1,230—$42,681
Boxes, covers, fans—3,644—$302,296

**Bendix Avia., Bendix Prod. Div., South Bend**
Misc. spare parts—$179,307
Carburetor spare parts—$287,663
Wheel & brake assys.—$1,508,431
Wheel assemblies—$205,000
Wheel & brake assemblies—$551,514
Filter, air cylinder assy.—13,700—$329,628
Front axle shaft assy.—4,000—$101,210
Piston valves—$51,233
Inner cylinder fork & diaphragm assy.—40—$48,352
Brake assemblies—$71,112

Eng. carb. degasser—39,918—$424,001
Piston kit—23,000—$181,044
Repair kit—9,393—$27,048
Spare parts—$44,417
Misc. parts—26,900—$114,129
Pistons, cups, cylinders—109,700—$71,582
Valve kit—9,900—$48,731
Wheel and brake assys.—$131,349
Valve assy.—5,600—$182,712
Carburetor assy.—630—$2,111,419
Diaphragm assy.—5,400—$393,162
Brakes & related spare parts—$229,099
Rotor brakes—$60,620
Carburetor—$75,000
Misc. strut assys.—$30,760
Wheel assys.—$62,494
Wheel and brake assys.—$265,625
Carburetor, washer, valves—46,460—$45,905
Shock struts for aircraft—101—$158,181
Parts for brake—$74,501
Wheel brake & strut for aircraft—38—$139,605
Master controls, fuel injection system, nozzles—$6,765,856
Carburetors and spare parts—$75,000
Wheel & brake assys.—$1,279,000
Carburetor assy. for P&W engine—145—$170,720
Venturi assy.—120—$219,946
Wheels & brakes—$216,337
Wheels & brakes—$80,046
Wheel and brake—$1,105,814
Wheel and brake—$675,655
Rotor brake—$427,500
Nose wheel—$46,316
Brake lining—44,775—$83,496
Carburetors—312—$344,239

**Bendix Avia., Bendix Radio Div., Towson, Md.**
Direction finder equip. — 63 — (approx.) $350,000

**Bendix Aviation Corp., Scintilla Magneto Div., Sidney, N. Y.**
Ignition equipment—$75,000
Magneto assy—90—$26,803
Coil assy.—1,151—$91,383
Exciter units and spare parts—$82,332
Ignition terminal—18,150—$29,134
Dynamotor filter unit—123—$12,914
Magneto assys.—153,237—$47,735
Breaker—2,747—$43,713
Light control switches—20,000—$200,000
Spare parts & sub-assys.—$274,705
Exciter units—$306,897
Elec. conn.—$450,400
Breaker assy.—2,052—$32,767
Plug-igniter—$157,500
Plugs, assy.—1,550—$25,801
Plugs—22,700—$86,453
Parts for P&W engine—570—$99,943
Aircraft engine start. coil—$51,793
Magneto & ignition harness & parts—$50,000
Magneto oil seals—52,000—$99,698
Magneto assy.—357—$114,863

**Bendix Avia., Zenith Carb. Div., Detroit**
Element—45,000—$51,358

**Bendix Westinghouse, Elyria, Ohio**
Retain. elbow—$52,577
Crankcase cover—15,512—$34,299
Compressors, screws—800—$42,838
Air compressor assy.—1,200—$104,340

**Bertea Products, Pasadena, Calif.**
Valve assy. poppet—6,520—$58,549

**Blackstone Corp., Jamestown, N. Y.**
Radiators—8,098—$15,589

**G. S. Blakeslee & Co., Cicero, Ill.**
Degreaser, vapor type—$33,074

**Blaw-Knox Div., Blaw-Knox Co., Pittsburgh, Pa.**
Concrete handling equip.—510—$48,087

**Blaw-Knox, Union Steel Cast., Pittsburgh**
Cast steel armor—$1,300,000

**Boeing Airplane Co., Seattle, Wash.**
Misc. changes—$40,122
Gas turbine engine—1—$25,000
Retrofit kits—$90,459
Spare parts—3,466—$282,105
Maintenance data—$27,509
Allocation for mobile training unit—$45,000
Kits for airplanes—$41,520
Modification of airplanes—$850,000
Parts, kits for airplanes—$7,958,297
Acquisition, modification, repair, etc., of B-54 and C-97 aircraft—$700,000

(Turn to page 300, please)





This large electrical equipment manufacturer needed finishing facilities to accommodate work varying in size from small panel sections to large power circuit breaker casings.

Peters-Dalton solved this problem by designing a batch-type system with intermittent conveyor.

Such features as dual spray piping in the cleaning inclosures, down-draft paint exhaust and revolving carriers were incorporated in this design.

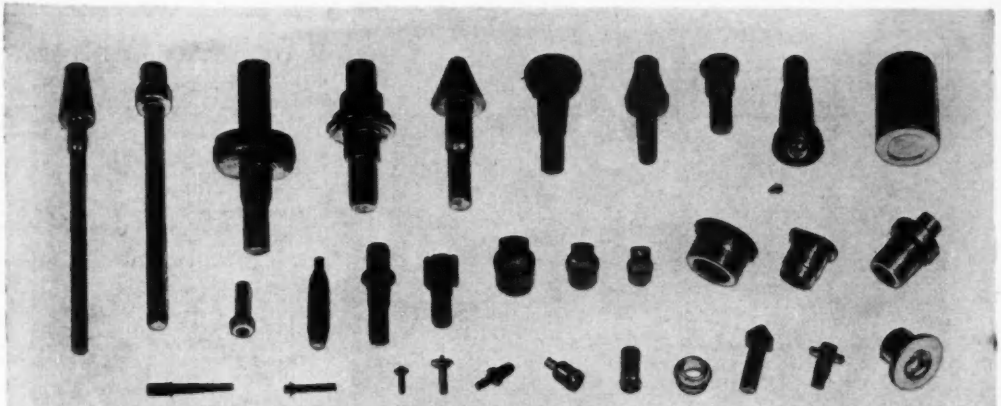
The experience and "know how" exhibited here is yours for the asking.

*Direct all inquiries to*

*For Finer Finishing Equipment — In Any Industry — It's*

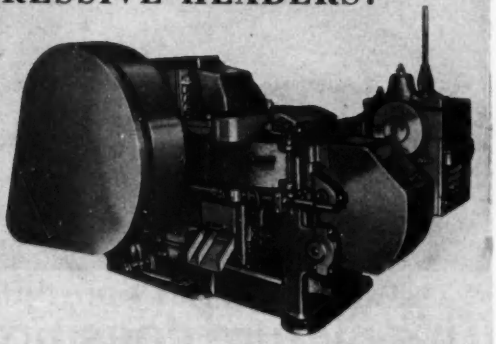
**PETERS-DALTON Inc.**

17930 RYAN ROAD • DETROIT 12, MICHIGAN



# COLD-FORGE YOUR "GADGETS" ON NATIONAL PROGRESSIVE HEADERS!

**Multi-Station Machine Produces Close-Tolerance Parts *Seven to Fifteen Times Faster* Than Machining Methods . . . Reduces Material Waste Up to 50% . . . .**



National Progressive-Type Headers are considered "The Gadget-Makers of Cold-Forging" because their range includes a wide variety of odd-shaped metal parts.

In the Progressive Header Method, the blank is cut off and progressively transferred through two or more sets of punches and dies, producing work previously considered too complex for high-speed cold-forging.

If your work involves double and triple extrusion—or multiple heading in two or more die impressions—then it is especially suited to the National Progressive Header Method.



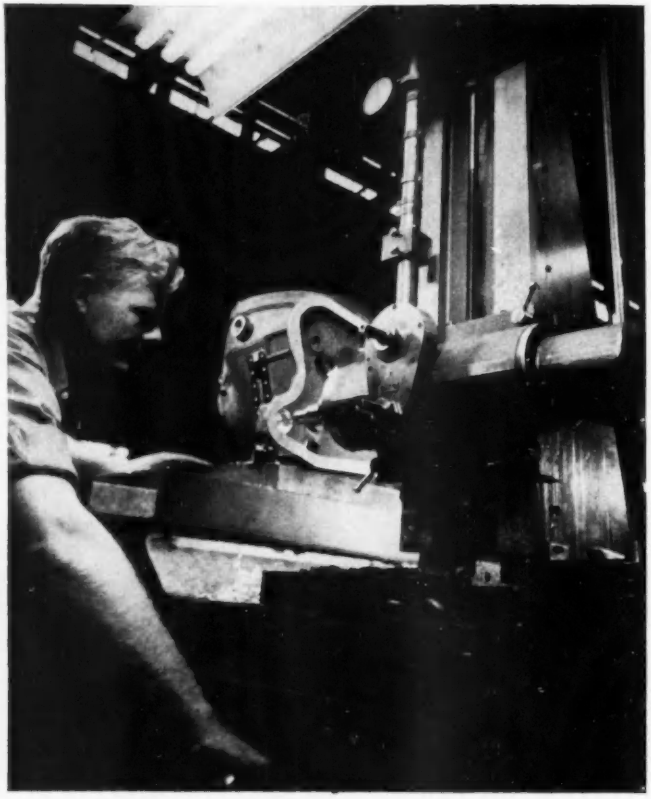

**THIS DOOR IS ALWAYS OPEN**

Let us help you apply National's experience in hot and cold forging to your jobs. Send us prints or samples of your work, or better yet, pay us a visit. No obligation.

**NATIONAL**
**MACHINERY COMPANY**
TIFFIN, OHIO.

DESIGNERS AND BUILDERS OF MODERN FORGING MACHINES—MAXIPRESSES—COLD HEADERS—AND BOLT, NUT, RIVET, AND WIRE NAIL MACHINERY

Hartford Detroit Chicago



# This picture* does not equal 10,000 words

**This is a fine photograph—but men and machines are only part of the story at IGW. It takes esprit de corps (a much overworked term that fits here)—it takes pride of workmanship to produce fine precision gears and parts.**

* This Horizontal Jig Borer is typical of the high precision tools designed and built by Indiana Gear for their own use.

Indiana GEARS

GEARS • CAMS • INTRICATE AND PRECISE MACHINE PARTS

INDIANA GEAR WORKS • INDIANAPOLIS 7, IND.

## Defense Contracts

(*Continued from page 298*)

**Boeing Airplane Co., Wichita, Kansas**
Main landing gear kits—116—$692,968
Installation of fuel gages in planes—$618,927
Modification of airplanes—$584,324

**Bogue Elec. Mfg. Co., Paterson, N. J.**
Covers, boxes, armatures, fans, etc.—3,750—$27,977

**Bohn Aluminum & Brass Corp., Detroit**
Bearings—5,340—$32,018
Bearings—$353,025

**Bower Roller Bearing Co., Detroit**
Roller bearings—$31,250
Ball bearings—$82,140

**Bowers Bat. & Spark Plug, Reading, Pa.**
Batteries—10,350—$115,138
Batteries—4,350—$56,140

**Bowser, Inc., Ft. Wayne, Ind.**
Fuel tank assy.—$973,180
Meter assys.—$297,994

**Boyertown Auto Body Wks., Boyertown, Pa.**
Ambulance body—150—$129,013
Ambulance body—556—$538,686

**Braden Winch Co., Tulsa, Okla.**
Winch assy., gear case cover—1,700—$85,758
Race, cam, gear, gasket, washer—13,027—$76,762

**Brad-Foote Gear Works, Cicero, Ill.**
Final drive—400—$250,000
Final drive—400—$250,000

**Breeze Corp., Inc., Newark, N. J.**
Conduits—14,800—$25,784
Spark plug sleeve for aircraft—43,750—$104,863
Clutch barrel & studs for actuator—40—$34,035

**Bristol Co., Aircraft Equipment Div., Waterury, Conn.**
Controller for aircraft—184—$67,283

**Stewart R. Brown Mfg. Co., New York**
Lamp assemblies—$144,336

**Brunswick Ord. Corp., New Brunswick, N. J.**
Facilities for making carrier assy.—$253,200

**Bucyrus-Erie Co., So. Milwaukee, Wis.**
Spare parts—$26,648

**The Buda Co., Harvey, Ill.**
Repair parts for Diesel engines—4,892—$44,960
Generator sets—10—$80,790

**The Budd Co., Detroit, Mich.**
Disk wheel—1,080—$27,017
Disk type wheels—1,408—$38,579
Wheel & stud—2,811—$60,887
Wheel assy.—23,092—$237,925
Wheel assy.—28,000—$297,920
Hubs, covers, & drum—75,000—$531,060

**Buffalo Weav., Behring Co. Div., Alliance, O.**
Guide center kit—32,000—$94,720

**Burger Mfg. Div., Canton, Ohio**
Metal lockers—$1,065,049

**Burgess Norton Mfg., Geneva, Ill.**
Tank track parts—$3,793,619

**Butler Mfg. Co., Minneapolis, Minn.**
Water tank—50—$131,650
Water tank for truck—200—$522,550

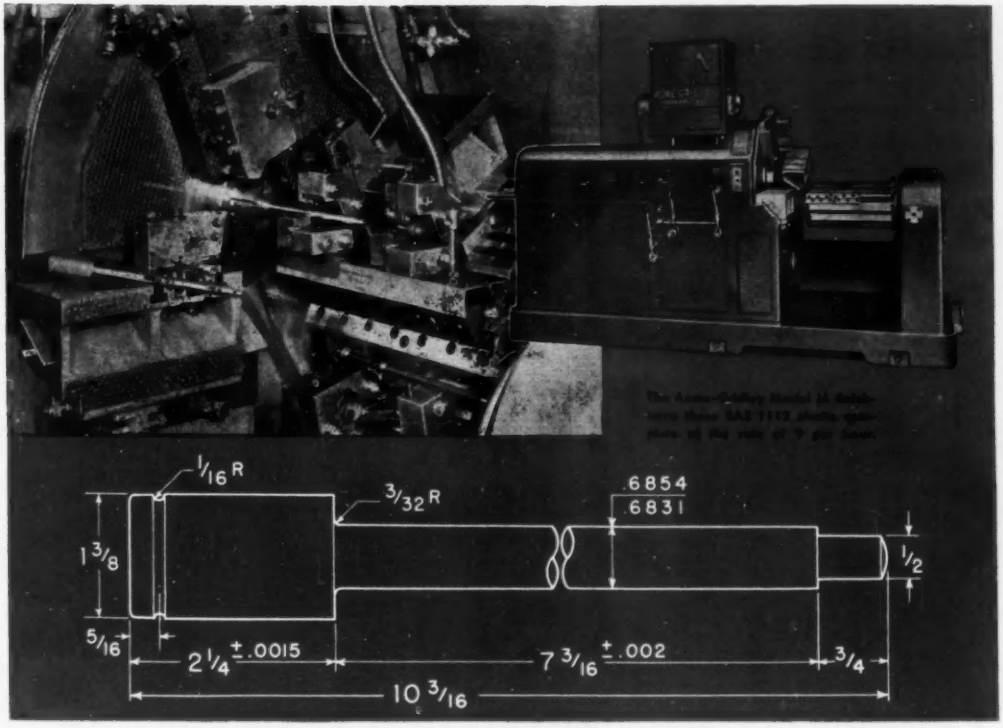
### —C—

**C & D Batteries, Inc., Conshohocken, Pa.**
Storage batteries—23—$27,939

**Campbell Chain Co., York, Pa.**
Tire chains—82,600—$600,178

**Camden Forge Co., Camden, N. J.**
Propeller shaft—6—$59,600

(*Turn to page 302, please*)




# THREE TIMES FASTER

## —with fine finish and close tolerances

## ALL ON AN ACME-GRIDLEY MODEL M AUTOMATIC

Turning long diameters to close tolerances can be tricky—but the new Acme-Gridley Single Spindle Model M Automatic takes exacting jobs like this in stride.

Its wide, open tooling zone and rugged frame are ideal for the special tooling such work requires. In the case-study illustrated, for example, there's plenty of room for the special independent accelerated drive used to get fine finish, and for the roller supports that help preserve close tolerance. Frame strength adequate for high-speed or carbide tools contributes to production records like this three-times-faster performance of nine shafts per hour.

There are other production-increasing advantages, too: eight independently operated tool slides and three ranges of automatic spindle speeds permit the use of the best speeds and feeds for each cut.

Ask for production estimates on your jobs.



Acme-Gridley Model M Automatics are built in three capacities: 3½", 4½" and 5½". For complete information ask for Bulletin M-50.

*Machine obsolescence is the creeping paralysis that strangles profits.*

**The NATIONAL ACME CO.**

170 EAST 131st STREET • CLEVELAND 8, OHIO

Acme-Gridley Bar and Chucking Automatics: 1-4-6 and 8 Spindle • Hydraulic Thread Rolling Machines • Automatic Threading Dies and Taps • The Chronolog-Limit, Motor Starter and Control Station Switches • Solenoids Centrifuges • Contract Manufacturing

# Defense Contracts

(*Continued from page 300*)

**Canadian Comm. Corp., Montreal, Can.**
Spare parts for aircraft—$801,848
Spare parts—$586,000
Spare parts—$891,339

**Canfield Tool & Die Co., Detroit**
Clutch arm—410—$83,613
Clutch drive arm—410—$83,613
Misc. arms—180—$34,000

**Cannon Elec. Dev. Co., Los Angeles**
Plug assy.—40—$27,061

**Capital Airlines, Washington, D. C.**
Engines (Pratt & Whitney)—136—$1,224,000

**Carbide & Carbon Chemical Div., New York, N. Y.**
Hydraulic brake fluid—25,000 gal—$53,345
Aircraft hydraulic fluid—13,660 gal—$46,853

**Carlisle Tire & Rubber Div., Carlisle, Pa.**
Tubes—8,000—$45,630
Tubes—32,226—$195,141

**Carpenter Mfg. Corp., Cleveland**
Carriers—20,000—$92,000

**Carron & Co., Detroit**
Brackets—$27,150

**Caterpillar Tractor Co., Peoria, Ill.**
Caterpillar Diesel engine—127 items—$27,659
Motor grader—23—$232,419
Machinery—$42,000,000

**Cessna Aircraft Co., Wichita, Kan.**
Aircraft—$1,445,000
Airplanes with spares—418—$2,551,074
One model LC 126B aircraft, spares—$28,000

**Champion Spark Plug Co., Toledo, Ohio**
Aircraft spark plug—711,425—$867,938
Cleaner & tester—1,465—$46,587
Aircraft spark plug—209,375—$259,625

**Chicago Pneumatic Tool Co., Detroit**
Compressors—$30,975

**Chrysler Corp., Detroit**
Facilities for prod.—$30,000,000
Elbow, gear, nipple—63,200—$81,790
Tank engines V-12—$100,000,000
Jet engines—$50,000,000
Misc. parts—39,800—$94,190
Bolts, brackets—28,137—$146,659
Filter bracket plate—38,800—$51,445
Joint plate—5,800—$28,306
Facilities for building tanks—554—$90,000,000
Facilities for building tanks—80—$140,000,000
Nut-pad-kit—39,048—$184,229
Retainer shaft, screws—60,800—$555,221
Rods, bushings, cylinders—535,500—$435,500
Protector & kit—32,000—$243,080
Heater—1,075—$30,594
Engine fuel replacement kit—9,640—$115,945
Arm assy., bracket, bumpers—7,575—$56,316
Engine, complete—3,000—$1,273,500
Seat, w/cushion—3,000—$92,340
Bushings, bearings—81,000—$26,360
Repair kit—14,696—$166,761
Aircraft cable—100,000 ft—$128,766
Seat w/cushion assy.—6,000—$136,110
Hoke, gate—6,500—$28,855
Covers, retainers—27,000—$25,950
Facilities vehicle mfg.—554—$90,000,000
Facilities vehicle mfg.—80—$50,000,000
Generator repair kits—14,000—$24,460
Engine, complete—9,496—$3,772,856
Unit, fuel gage, etc.—53,386—$66,982
Kits—2,125—$28,277
Gears—8,316—$145,681
Fuel tank—4,250—$70,372
Engine—1,000—$192,500
Axle assy.—15,711—$5,213,064
Differential & carrier assy.—10,748
Baffle—2,027
Axles—$193,200
Brake pedal—$96,090
Wick, cover, etc.—69,000—$45,839
Shaft, slinger—126,500—$25,514

**David Clark Co., Worcester, Mass.**
Valve assemblies—$46,551

**Clark Cable Corp., Cleveland**
Wiring harness—19,253—$26,332
Body bow—3,900—$27,625
Wiring harness—8,927—$79,428
Connectors & cables—30,800—$108,945
Wiring harness—31,300—$123,700
Harness—$35,040
Guide—250,000—$30,750
Cables, terminals—41,660—$42,768
Cable, exten. wire (set)—13,466—$47,398
Misc. harness cable—2,300—$33,295
Brush bolt—162,150—$30,739
Wiring harness—21,951—$57,620
Suppress. gasket, misc. nuts, etc.—$50,740
Cables, terms., etc.—41,660—$42,768
Harness—5,900—$39,090
Harness, cables, straps—28,450—$52,555
Battery term., misc.—304,000—$25,690
Repair kit, etc.—101,531—$47,157
Stud, harness, wire—10,100—$33,872

**Clark Equip. Co., Battle Creek, Mich.**
Material handling equip.—83—$25,171
Gasoline powered tractors—106—$158,423

**Clark Equip. Co., Buchanan, Mich.**
Trucks & tractors—69—$198,793
Trucks, fork, gasoline—164—$348,320
Trucks, fork lift, gasoline—9—$46,271

**Cleveland Ignition Co., Cleveland**
Carburetors—8,500—$48,365

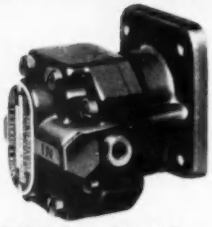
**Cleveland Pneumatic Tool Co., Cleveland**
Spare parts—$105,113
Fork assy.—5—$29,134
Drag brace & crankshaft for aircraft—31—$42,159
Assys., subassys., etc.—$50,000
Shock strut—38—$324,019
Strut assys. for aircraft—40—$389,831
Brace assy.—25—$121,249

**Cleveland Steel Barrel Co., Cleveland**
Shipping container—22,280—$33,964

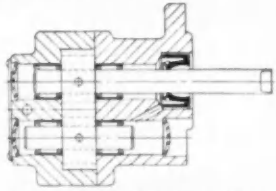
(*Turn to page 304, please*)


# new BARNES HIGH-PRESSURE PUMPS

The Barnes *Constant-flo* Rotary Gear Pump illustrated here is now available in new high-pressure models featuring substantial improvements in efficiency and performance. These new models have exactly the same overall and mounting dimensions as the standard low-pressure designs. The extra cost is extremely low.



## EFFICIENCY GREATLY INCREASED BY USE OF ANTI-FRICTION BEARINGS



This cross-section drawing shows clearly the major difference between the low-pressure and new high-pressure models — the use of anti-friction bearings in place of plain bearings on both gear shafts. Actually, the housing is the same for both models, with the same bored holes. A new method of precision assembly, however, provides much closer clearances.

## FOR HIGH-PRESSURE HYDRAULIC APPLICATIONS

Standard types of these new high-pressure pumps are specified for operating up to 1000 psi continuous and 1500 psi intermittent duty. Special types for still higher pressures have also been produced — for example, one with a narrow gear face is now handling 2000 psi continuous and 3000 psi intermittent. *Let us quote on your requirements — the figures will surprise you.*

FARM TRACTOR HYDRAULIC LIFTS

LIFT TRUCKS

POWER STEERING

HIGH-PRESSURE FUEL TRANSFER

and other high-pressure hydraulic applications

**Write for Data Sheets on Barnes High-Pressure Constant-flo Rotary Gear Pumps**

**JOHN S. BARNES CORP.**

**301 S. WATER STREET • ROCKFORD, ILLINOIS**



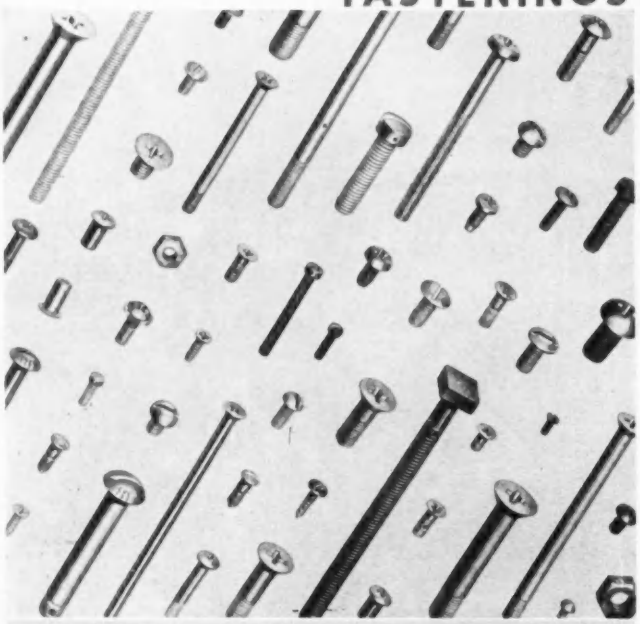
## Positive Ignition and Engine Control in One Package

WHITE MOTOR MODEL 3026 tractors use the Holley Pressure Distributor-Governor combination as standard equipment. This patented design combines vacuum actuated spark control with precision engine-speed control, when used in conjunction with the Holley governor type carburetor.



# HOLLEY

HOLTITE
Aircraft
FASTENINGS



Specifically designed and produced for the vitally important job of fastening aircraft assemblies and equipment, HOLTITE Aircraft Screws, Bolts and Nuts are precision-made to the specifications indicated on A N and N A S drawings, and to individual customer's specifications such as Chance Vaight (C V C), and Boeing (B A C).

Heat treating, plating and other finishing operations are in strict accordance with A N and N A S specifications.

Our manufacturing, processing and inspection facilities are air force approved, and we operate under Quality Control Procedure for aircraft material as authorized and regulated by Air Materiel Command Directorate Office Instruction 74-23.

Send for special catalogs and pricing schedules. Specify HOLTITE fastenings for all aircraft and equipment requirements.



CONTINENTAL SCREW CO. New Bedford, Mass., U.S.A.

## Defense Contracts

(*Continued from page 302*)

**Clifford Mfg. Co., Waltham, Mass.**
Oil cooler assy.—162—$52,650
Oil cooler assy.—187—$60,775

**Climax Eng. & Pump Co., Clinton, Iowa**
Spare parts—209—$30,298

**Coffing Hoist Co., Danville, Ill.**
Chain hoist—975—$106,265

**C. S. Collins, Inc., Newton Center, Mass.**
Axles—1,400—$409,975

**Commercial Eng. Co., Washington, D. C.**
Repair parts for oil clarifiers—31,361—$187,794

**Company Prod., Inc., Centerline, Mich.**
Towing bar—2,950—$117,262

**Condamatic Co., Detroit**
Engine knuckle pin—18,125—$61,443

**Connecticut Telephone & Elec. Co., Meriden, Conn.**
Telephone system—$2,544,000

**Cons. Diesel Elec. Corp., Stamford, Conn.**
Diesel generators—40—$135,285

**Consolidated-Vultee Corp., San Diego, Calif.**
Spare parts for aircraft—$6,500,000

**Cons.-Vult., Ft. Worth, Tex.**
Repair, rework & modification—$200,000

**Continental Avia. & Eng. Corp., Detroit**
Bolts, nipples—51,000—$26,161
Exhaust pipe—1,717—$36,795
Covers—10,200—$54,192
Helicopter engines—$7,000,000
Design Diesel engines—$1,000,000

**Continental Motors Corp., Detroit**
Engine assy.—6—$59,204
Drawings & parts—$83,632
Engine piston—8,100—$65,539
Engine—$17,374,896
Engine assy.—100—$968,700
Engine—$49,386
Gas engines—1,283—$5,000,000
Spare parts—13 sets
Engine—137—$5,000,000

**Continental Motors Corp., Muskegon, Mich.**
Arm, valves, brackets, camshaft, etc.—42,229—$47,952
Spare parts—$150,000
Misc. valves & sprockets—24,041—$30,170
Housing—9,700—$39,499
Bearing set, bracket—17,015—$83,610
Shaft seal seat—7,920—$39,098
Pump—1,000—$306,862
Block, pan—1,636—$37,839
Spare parts for aircraft—$60,000
Adapter, arms, blocks—4,530—$40,115
Bearings, brackets, bushing, button, etc.—17,015—$83,610
Connector, impeller, etc.—10,130—$58,825
Bearing, gasket set—16,700—$109,475
Engine assy.—2,100—$4,553,555
Engines & spare parts—$500,000

**Cook Electric Co., Chicago**
Switch for engines—895—$52,581

**Control Eng. Corp., Canton, Mass.**
Charger, solenoid—$76,233

**Co-Operative Ind., Inc., Chester, N. J.**
Conduit—27,445—$50,188
Cable term.—107,044—$81,317

**Cooper-Bessemer Corp., Mount Vernon, Ohio**
Parts for Diesel engines—5,311—$61,842

**Cooper Tire & Rubber Co., Findlay, O.**
Camelback—349,000 lb—$74,707

**S. J. Corbett Co., Detroit**
Bag—1,968—$47,940
Seat cushion envelope—10,000—$45,000
Covers—$80,000

**Cornelius Co., Minneapolis, Minn.**
Tank & compressor—60—$47,722

**Crissom & Son, Inc., Detroit**
Pinion, shaft, etc.—17,150—$83,371

(*Turn to page 308, please*)



# 207 Years

## OF KNOW-HOW IN MANUFACTURING

# GABRIEL *Shock Absorbers*



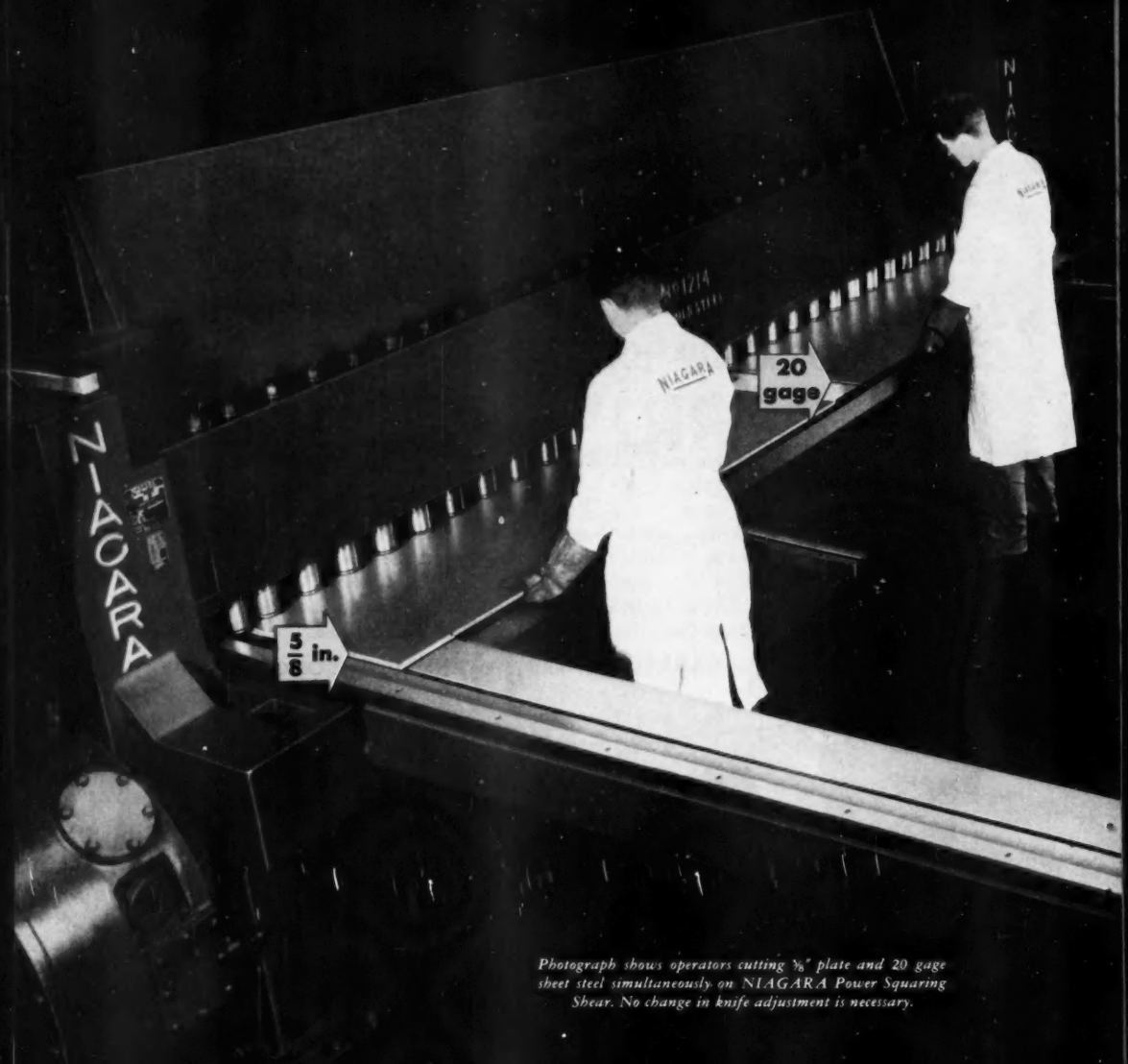
It's the men behind machines that make the wheels go 'round. These twelve men **serving in supervisory capacities** average over 17 years each in the production of Gabriel shock absorbers. They possess the priceless ingredient of experience . . . They are your assurance of highly uniform shock absorber production and performance.

THE **GABRIEL** COMPANY • CLEVELAND 3, OHIO

**GABRIEL**
**HYDROSHOX**

**ANTENNAS • THERMOSTATS • COIL SPRINGS • FLEXIBLE TUBING • HELPER SPRINGS • METALUME & "CELASTIC"**

# CUTTING 20 GAGE and 5/8" PLATE SIDE-BY-SIDE AT ONE STROKE




*Photograph shows operators cutting ⅝" plate and 20 gage sheet steel simultaneously on NIAGARA Power Squaring Shear. No change in knife adjustment is necessary.*

The ability of Niagara Power Squaring Shears to cut thick and thin plate both at the same time with the same knife setting is a dramatic demonstration. Visitors at our plant can see this done every day. There is no necessity for tinkering with the knife adjustment.

# *Demonstrates The Sound Engineering Design of*

# NIAGARA

## POWER SQUARING SHEARS

● There is no compromise with sound, proven engineering when it comes to NIAGARA shear design and construction.

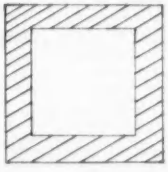
Accurate cutting depends primarily on rigidity of the shear's components.

For bed, crosshead and holddown NIAGARA uses CLOSED BOX SECTIONS to resist with minimum deflection the horizontal, vertical and diagonal or torsional loads to which every shear is subjected.

NO OTHER SECTION WILL DO THIS JOB AS EFFICIENTLY.

Angle or channel shaped sections have long since been abandoned for use on NIAGARA Power Shears.

The economy of quality is remembered long after price is forgotten.



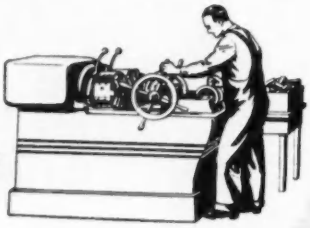


**BED, CROSSHEAD & HOLDDOWN DESIGN**

NIAGARA MACHINE AND TOOL WORKS, BUFFALO 11, NEW YORK

DISTRICT OFFICES: DETROIT, CLEVELAND, NEW YORK

# TIPS ON TAPPING AND THREADING TROUBLES



*Page A-6*

DATA

OILS FOR TAPPING AND THREADING

**OILS WITH ACTIVE SULPHUR REQUIRED**

Tapping and threading are difficult machining operations due primarily to limited chip room and the difficulty of maintaining sufficient lubrication at points of contact between threading tool and workpiece. Cutting oils having high sulphur activity are usually required and recommended for difficult threading and tapping work. Stuart's THREDKUT and related products, due to their high effective sulphur content, have been outstanding for this class of work. Active or effective sulphur in an oil functions as an anti-weld agent preventing pick-up of metal particles on the tool which results in scuffing and poor finishes.

**RULE OF THUMB**

Here is a good rule of thumb to remember when sulphurized cutting oils are being used:

When you observe excessive wear on the front clearance of cutting tools, DECREASE the amount of active sulphur in the oil by diluting with paraffin oil or other low cost blending oil. If poor finish is encountered due to welding or metal pick-up on the tool edge, INCREASE the active sulphur, or if Stuart's THREDKUT is being used, apply it straight.

RESULTS

**Operation:** Threading male pipe union sections on large automatics using single point tools.

**Material:** Type 310 stainless steel.

| Oil: | Previous Oil | Stuart's THREDKUT 9961 |
|---|---|---|
| Tool Life: | 136 pcs. per tool grind | 310 pcs. per tool grind |
| Part Finish: | Fair | Excellent |
| Cutting Fluid Costs on Machine: | $0.47 per gallon | $0.44 per gallon |

***Write for Literature and ask to have a Stuart Representative call***

**D.A. Stuart Oil Co.**

2733 S. Troy Street, Chicago 23, Ill.


## Defense Contracts

*(Continued from page 304)*

**Crosley Div., AVCO Mfg. Corp., Cincinnati**
Rack assy.—$1,143,000
Glide path receivers—$1,244,269

**Cummins Engine Co., Columbus, Ind.**
Parts for Diesel engines—18,352—$75,117

**Cuno Engr., Meriden, Conn.**
Engine filter—2,000—$170,940
Motors—1,280—$81,825

**Curtiss-Wright Propeller Div., Caldwell, N. J.**
Whirl test stand—$50,778
Instrument flying trainers—$2,632,056
Propellers and parts—$200,000
Prop. kit assemblies—$66,068

**Cutler-Hammer Inc., Phila., Pa.**
Switch—31,065—$28,048

**—D—**

**Dana Corp., Toledo, Ohio**
Shaft—1,021—$39,920

**Davey Compressor Co., Kent, Ohio**
Air compressor—59—$140,715

**Dayton Aircraft Prod., Dayton, Ohio**
Hand operated heater—$43,600
Spare parts, coupling, float—$25,703

**Dayton Rubber Co., Dayton, Ohio**
Tires—25,000—$1,001,100

**DeJur-Amsco Corp., Long Island, N. Y.**
Indicator—949—$30,842

**Delco Products Div., GMC, Dayton, O.**
Motor assembly—$27,100
Motors, parts and generators—17,797—$217,358
Absorber—1,000—$52,100
Shock absorber suspension—2,000—$104,200

**Deman Tire & Rubber Co., Warren, O.**
Tires—72,968—$1,701,287

**Deming Co., Salem, Ohio**
Hand pump-head follower—5,890—$32,842

**Denison Engineering Co., Columbus, O.**
Kits—$264,105
Conversion kits, hydraulic—$225,000

**Denman Rubber Mfg. Co., Warren, O.**
Tires—900—$41,220
Tires—5,600—$78,277

**Detroit Gasket & Mfg. Co., Detroit**
Gasket set—40,000—$37,800
Gaskets—$79,618

**DeVilbiss Co., Toledo, Ohio**
Paint container—910—$57,666

**Dial Screw Prod. Co., Jackson Hts., N.Y.**
Keys—240,000—$28,868

**Diamond T Motor Car Co., Chicago**
Gear and pinion set and gear—1,740—$47,775
Mainshaft—2,200—$29,975
Air Compressor Assy.—660—$52,826
Radiator tank rod—14,059—$40,190
Radiator core—1,073—$63,139
Generator assy.—5,000—$124,600
Transmission, tubes & bushings—5,801—$336,140
Carrier, and cap assy. adjuster, etc.—2,857—$50,066
Water pump repair kit—5,660—$65,446
Supports, bodies, covers, bushings—887—$26,780
Pilot cage—4,617—$45,503
Radiator fittings—2,500—$69,610
Gears—10,000—$57,900
Distributors—4,000—$25,880
Yoke—4,048—$34,743
Crank, hub, rod—7,200—$39,348
Engines w/accessories—60—$309,195
Winch & screw hoist—250—$34,855
Relay valve—13,000—$179,400
Crankshaft—1,200—$200,820
Starter—5,245—$209,312
Tumblers, crossmember, side rod, etc.—8,238—$25,497
Springs, roller, chains, etc.—5,900—$26,633

*(Turn to page 310, please)*

C/R

# PICK A PRODUCT



## chances are you'll find C/R

Wherever mechanisms move, from tractors to flying boxcars, you'll find C/R Oil Seals. They are specified on so many products because they have been found to give more dependable service and to stand up longer. In fact, more motor vehicles, farm implements, road machinery and industrial machines are equipped with C/R Oil Seals than with any other shaft-type sealing device.

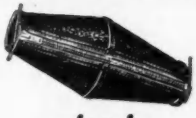
The reason for such universal acceptance is twofold: unparalleled experience and absolute product reliability. For 30 years Chicago Rawhide engineers have pioneered to find the "Perfect" answer to fluid retention and mechanism protection problems. They have helped establish and maintain the highest standards of quality and performance. Today, 15 standard types and 1800 sizes are available —and special seals will be developed for particular applications.

When you specify C/R Oil Seals for your application, you know you are getting the world's finest shaft-type sealing device.

***Chicago Rawhide engineering service is always available for the solution of your particular sealing problems.***

**ENGINEERS:** We will be pleased to send you engineering data on "Perfect" Oil Seals on receipt of your written request.

**CHICAGO RAWHIDE MANUFACTURING CO.**
1310 Elston Avenue OIL SEAL DIVISION Chicago 22, Illinois



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**Mechanical Leather Products**
Boots, diaphragms, packings and other products give dependable service under difficult operating conditions.



**SIRVENE**
**The Scientific Compounded Elastomer**
Custom-engineered and custom-built for critical service in aircraft, automotive and other mechanisms.

**C/R PERFECT Oil Seals**

Manufactured and distributed in Canada by Super Oil Seal Mfg. Co., Ltd., Hamilton, Ont.

Boston • New York • Syracuse • Philadelphia • Pittsburgh
Cincinnati • Cleveland • Detroit • Peoria • Minneapolis
Kansas City • Houston • Los Angeles • San Francisco




## Defense Contracts

(*Continued from page 308*)

Sleeve housing—6,076—$44,148
Cable carrier, channel, clamp, bell crank, etc.—6,035—$26,064
Truck, tractor—150—$791,250
Shim kit—2,000—$31,390
Distributors—4,000—$25,850
Regulators—5,000—$81,000
Fittings, radiators, misc.—2,500—$69,620
Engine w/accessories—1,600—$2,311,808
Engine w/accessories—1,600—$2,311,808
Tactical vehicles—$52,500,000

**Dismuke Tire & Rubber, Clarksdale, Miss.**
Tubes—14,195—$67,853

**Henry Disston & Sons, Tacony, Pa.**
Armor plate, plate well—1,890—$59,010

**Dixon Mfg. Co., Coffeyville, Kans.**
Assembly—$350,000
Hydraulic jacks—$395,783

**Donaldson Co., St. Paul, Minn.**
Cleaners—2,952—$32,587

**Douglas Aircraft Co., Long Beach, Calif.**
Ladder assy.—$28,361

**Douglas Aircraft Co., El Segundo, Calif.**
Parts, modification kits for aircraft—$60,000

**Douglas Aircraft Co., Santa Monica, Calif.**
Spare parts—$90,000
Seat attaching kits—$25,864
Fire prevention kits—$43,674
Spare parts—$2,635,000
Spare parts—$779,000
Airplanes—$3,840,000
Aircraft parts (spares)—$3,500,000
Spare parts—$9,400,000
Spare parts—$75,000
Spare parts—$100,000
Aircraft parts—$45,087
Aircraft parts—$45,894
Aircraft parts & tools—$270,000
Aircraft parts—$800,000
Maintenance parts—320—$38,874
Tail wheel shock absorber strut—59—$31,344
Model aiplanes and spare parts—$97,411,091
Spare parts—$31,924
Airplanes, parts—14—$19,023,205
Scoring camera system—$58,175
Rehabilitation & provision for aircraft—$7,500,000
Parts for aircraft—$450,000
Parts for aircraft—$285,000
Engineering changes for C-124A—$2,696,850
Parts for aircraft—$65,000
Misc. spare parts—$1,414,653

**Douglas Mfg. Co., Kingston, Branson, Mich.**
Lighting switch—25,000—$39,250

**Dumont Aviation & Supply Co., Long Beach, Calif.**
Misc. aircraft hardware—$46,652

**Dunbar Kaple Inc., Geneva, Ill.**
Trailer, ¼ ton—4,665—$1,632,286

**Duncan & Son Battery Co., Los Angeles**
Batteries—1,300—$42,768
Batteries—2,800—$86,020

**Dunlop Tire & Rubber, Buffalo, N. Y.**
Tires, tubes—15,200—$164,224

**Dun Rite Tool & Die Co., Dearborn, Mich.**
Boxes—$30,000

**Durham Co., Inc., New York, N. Y.**
Armature—$32,335

**Dynamic Air Engineer, Inc., Los Angeles**
Blowers—$27,172

(*Turn to page 312, please*)

# Parts for NEW "Caterpillar" Tractors machined by KENT-OWENS



New "Caterpillar" Diesel DW20 Tractor and W20 Wagon hauling heavy clay.

After five years of research, testing and proving—"Caterpillar" has announced two great new Tractors . . . and Kent-Owens Milling Machines help to save production costs.

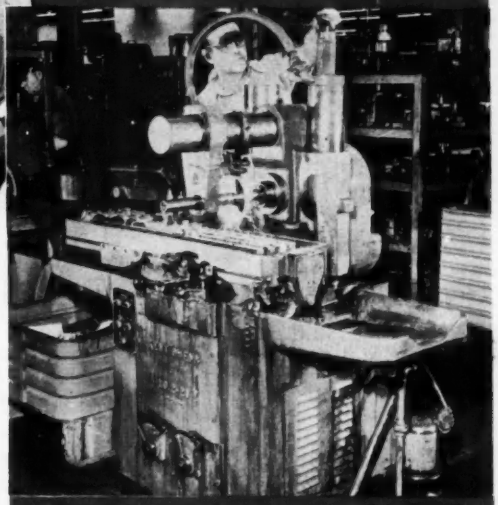
These new "Caterpillar" products are high-speed, long haul and high-capacity earthmoving machines built by Caterpillar Tractor Co., Peoria, Ill. The new units are a four-wheel Diesel tractor-wagon combination, the "Cat" DW20 Tractor with W20 Wagon; and the powerful two-wheel Diesel prime mover, the "Cat" DW21 equipped with the No. 21 Scraper.

The Kent-Owens Machine in the upper photo is milling bearing lock slots in connecting rods and caps. Due to the flexibility and ease in setting up Kent-Owens machines, the Caterpillar Company have found these machines can be easily adapted for a wide variety of operations. The machine in the lower photo is used for milling operation on compression release levers, clutch control levers, governor control levers and bell cranks. Write for Bulletins. Also, let our engineers help you with tooling and special machine requirements. Kent-Owens Machine Co., Toledo, Ohio.

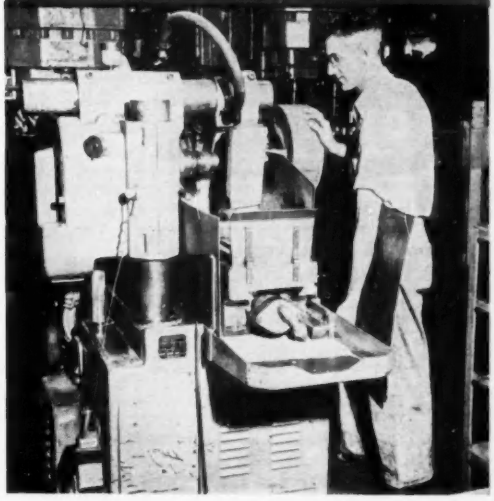
*Call on*

**KENT-OWENS**

*for Milling Machines*



Here are two Kent-Owens No. 2-20 Milling Machines in use at Caterpillar Tractor Co. These milling machines have 42" x 12" table, and 20" table travel.



fast, agile, highly maneuverable • outstanding design

compact, rugged construction • touch-button control

transports 4,000-lb. loads • smooth hydraulic lift

positive-action brake • raises heavy loads rapidly

dual rubber trailer wheels • powerful electric drive

*See the*
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BOOTHS 322-323
1951 MATERIALS HANDLING EXHIBITION
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Chicago, April 30—May 4




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more features

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# Defense Contracts

(*Continued from page 310*)

## —E—

**Eastern Rotocraft Corp., Willow Grove, Pa.**
Tie down devices—$392,179
Tie down devices—$332,500

**Eaton Metal Poducts Corp., Omaha**
Gasoline filter—610—$34,753

**Eclipse Pioneer Div., Bendix Avia. Corp., Teterboro, N. J.**
Engine pressure instruments—$433,109
Block assy.—1,000—$178,536
Fuel pressure transmitters—$49,475
Compass—1,778—$77,962
Automatic engine control—32—$26,730
Maintenance parts—100—$26,.34
Indicator—$161,643
Starters—110—$34,448
Transmitter—840—$711,383
Boost controls—$665,000
Spare parts—$58,2.9
Spare parts—$45,953
Tester-angular accuracy indicating—$49,-069
Head eng. generator—2,013—$88,141
Generators and regulators—1,050—$232,428
Aircraft accelerometers—$118,472
Pilot shaft assy.—595—$52,197
Automatic control—135—$122,810
Tools & test equip.—104—$62,617
Clutch—850—$20,840
Boost control—382—$230,238
Automatic pilot components—780—$1,905,-265
Fuel transmitter—444—$658,207
Components of automatic pilot—$132,687
VA single phase invertors—$70,560
Magnesyn assembly—300—$25,589
Valve & pump assemblies—$105,565
Inverters—$567,050
Master junction box & spare parts—1,340—$200,000
Spare parts for automatic pilots—$47,812
Fuel flow indicator—$39,538
Fuel flow transmitter—$147,836
Alternator & excitor control—145—$152,-376
Screw—1,700—$49,882
Turbo-jet engine starters—$450,900
Starter brush—17,000—$77,815
Diaphragm for oxygen regulators—3,080—$84,856
Starters—$124,299
Test stand—2—$64,614
Adapter—32—$47,114
Automatic pilot, components—$703,600
Fuel pressure transmitter—$128,511
Multi-purpose transmitter—$153,363
Hydraulic pressure indicator—$326,772
Fuel pressure indicator—$97,448
Compass signal amplifier—$312,760
Directional indicator—$377,928
Vertical gyro indicator—$1,134,035
Aircraft accelerometer—$131,826
Airspeed indicators, etc.—$44,547
Directional indicator—$192,351
Voltage regulators—$44,949
Inverters—5,000—$68,264
Engine control system—$46,360
Tester, magnesyn, etc.—$100,851
Services & material to modify, repair controls—$30,000

**Thomas A. Edison, Inc., W. Orange, N. J.**
Batteries—70,000—$1,278,900

**Edison Storage Battery Div., Detroit**
Storage battery—57—$91,467

**Eicor, Inc., Chicago**
Inverters—$70,269
Engine driven alternators—$252,900
Alternators—$113,400

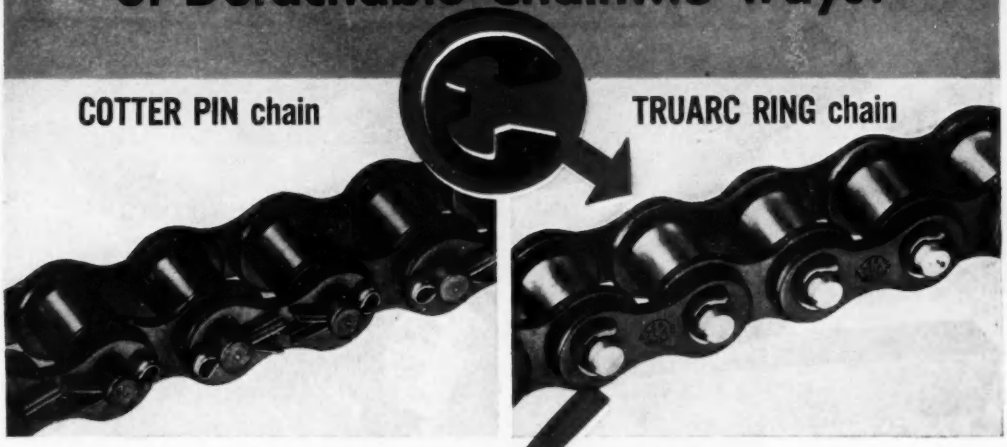
**Electrical Engineering & Mfg. Co., Los Angeles**
Pump motors—$31,025
Screw jack—250—$40,000
Actuator—73—$47,905

**Electrical & Magneto Co., Tulsa, Okla.**
Carburetor assy.—50,000—$275,320
Carburetor lever—20,000

**Electric Auto Lite Co., Toledo, Ohio**
Armatures, supports, cables—50,254—$59,-698
Light, head rotor—177,500—$177,205
Starter assy.—20,968—$46,258
Head lamp—21,136—$50,092
Generator assy.; armature—1,895—$34,293

(*Turn to page 316, please*)

# Truarc E-Rings Improve Performance of Detachable Chain...5 ways!




In every possible kind of test—tensile, impact, shock, speed—detachable chain made with Truarc Rings outperforms chain equipped with cotter pins! That's what Atlas Chain & Manufacturing Co., Philadelphia, discovered, after pioneering chain with Truarc E-Rings.

Improve your own product with Truarc Rings! Wherever you use machined shoulders, collars, cotter pins, bolts, nuts, screws, snap rings...a Truarc Ring will do the job better: improve performance, cut unit cost, save space and weight, eliminate parts, permit use of stock sizes, eliminate skilled labor operations, simplify maintenance.

Truarc Rings are precision-engineered. Quick and easy to assemble, disassemble. Give a never-failing grip. Can be used over and over again.

Find out what Truarc Rings can do for you. Send your blueprints to Waldes Truarc engineers, for individual attention, without obligation.

**Waldes Truarc Retaining Rings are available for immediate delivery from leading ball bearing distributors throughout the country.**

**1. STRONGER.** Average 30% higher *static thrust strength* than cotter pins. Resilient E-Ring reinforces links against exceptional *side stress*—resilient spring is most efficient means of damping vibration.

**2. GREATER SHOCK RESISTANCE.** Higher *shock strength ratios* than cotter pins, due to greater contact surface plus spring reaction for damping moment of shock. Circular movement of ring in groove relieves *shock surface loadings* —instead of resisting rigidly as with cotter pins in fixed holes.

**3. HIGH SHOULDER.** High effective bearing shoulder extends practically all around pin, and is geometrically perfectly proportioned to link diameter.

**4. RE-USABLE.** No part of E-Ring fatigues and breaks off, as with ends of re-used cotter pins. Ring removes easily with screwdriver.

**5. REDUCES ACCIDENTS.** Does not protrude to catch onto clothing. No sharp-pointed ends to produce electrical brush discharge and resultant fire and explosion hazard in mines and mills.

**Visit the Truarc Exhibit, Booth 358, at the IRE Radio Eng. Show., Grand Central Palace, N. Y., Mar. 19-22**

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**WALDES TRUARC**

REG. U. S. PAT. OFF.

**RETAINING RINGS**

WALDES KOHINOOR, INC., LONG ISLAND CITY 1, NEW YORK

WALDES TRUARC RETAINING RINGS ARE PROTECTED BY THE FOLLOWING PATENT NUMBERS: U. S. PAT. 2,362,960; 2,420,021; 2,451,761; 2,487,003; 2,487,802; 2,491,306 AND OTHER PATS. PEND.

Waldes Kohinoor, Inc., 47-16 Austel Place A'033
Long Island City 1, N. Y.

Please send selector guide catalog (4K-W) on Waldes Truarc Retaining Rings.

Name_____

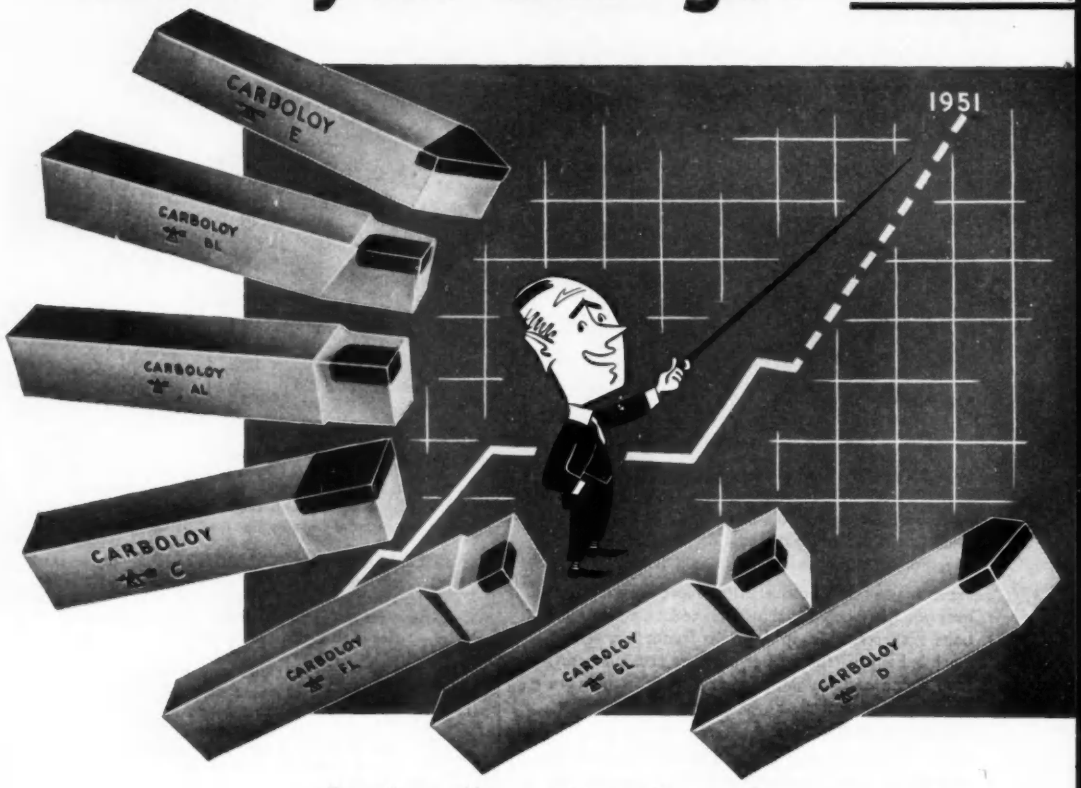
Title_____

Company_____

Business Address_____

City_____ Zone_____ State_____

# How you can get even




## Only Standards give you—

**ADAPTABILITY**—can be quickly, economically ground in your own tool room to do up to 80% of your single-point tool machining! Eliminate the need for a large, costly inventory of special tools.

**UNIVERSAL USE**—can be used in lathes, boring mills, etc., to machine any metal or non-metallic . . . *unmatched performance on steel cutting.* Suitable for job lots or quantity productior..

**LOW COST**—comparable in price to many high-speed steel tools and in many sizes actually cheaper. Mass-produced under rigid quality controls to give you the highest quality at low investment cost.

**GREATER AVAILABILITY**—Authorized Carboloy Distributors in 95 cities, coast to coast, normally stock Carboloy Standard Tools in commonly used styles and sizes.

SPECIFY **CARBOLOY®**
CEMENTED CARBIDE
**"The least number of tools**

# greater productivity from carbide tools

## 3 valuable aids from Carboloy Company to help you increase efficiency, conserve tools




### Carboloy Plan of Coordinated Carbide Control

The Carboloy "Triple C" Plan is a practical system proven in hundreds of plants for increasing production and conserving tools through properly coordinating all phases of carbide tool design, use and maintenance. This plan is easy to operate with your own personnel. Write today for your free copy of the "Triple C" Book, which explains this proven plan in detail.

### Carboloy Tool Manual

This 200-page handbook of technical help on carbide tool design, application and maintenance is the most comprehensive, up-to-date manual ever offered on the technique of designing, using and maintaining carbide tools. Presented in easy-to-read, step-by-step technique to help you get even greater productivity from carbide tools. Your copy sent on request.






### Carboloy Training Film

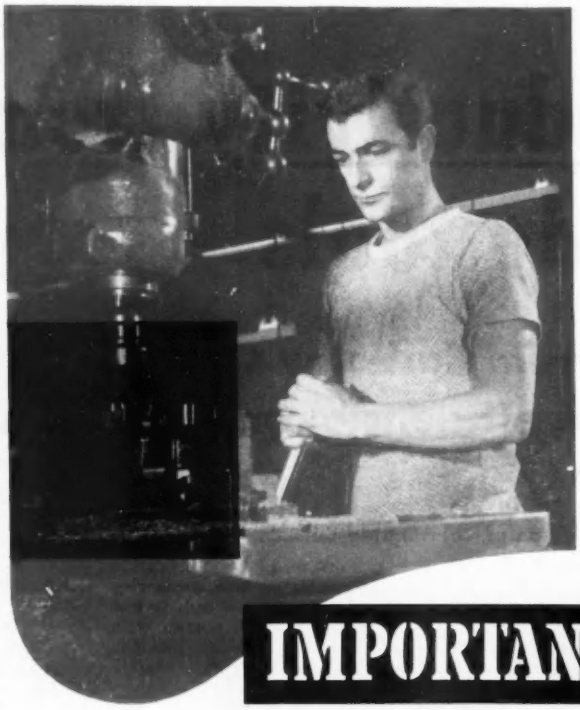
These 35-mm silent slide films (not motion pictures) are invaluable for plant training—refreshing older workers, instructing newcomers—to help them get the most from carbide tools. Films cover the material included in the Carboloy Tool Manual in easy-to-grasp, visual form. Available to you at approximate print cost. Free film catalog on request.

**CARBOLOY COMPANY, INC.**
A General Electric Affiliate
**11151 E. 8 Mile Road, Detroit 32, Michigan**

® The trade-mark "Carboloy" denotes manufacture by Carboloy Company, Inc.

THE QUALITY BRAND OF
**Standard Tools**
**for the greatest number of jobs"**

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IMPORTANT

precision production

For the past 50 years The Pierce Governor Company, Inc. of Anderson, Indiana, has excelled in the design, engineering, and production of important parts for the Automotive and Aircraft industries. Today's production features:

*Sisson Automatic Chokes*

Complete line of precision engineered chokes for the automotive industry—original equipment and replacement parts

*Famous Pierce Governors*

Pierce centrifugal, mechanical, and hydra-mechanical governors for every electric, automotive and Diesel engine requirement

*Aircraft Engine Controls*

Design and manufacture of precision hydraulic and mechanical fuel control systems for leading aircraft engines

*Hydraulic Transmission Controls*

Manufacture of sensing mechanisms for hydraulic transmissions

Let Pierce's precision engineered products and manufacturing facilities solve *your problem!* Write . . .

**The Pierce Governor Co., Inc.**
**Anderson, Indiana**

PIERCE

# Defense Contracts

(*Continued from page* 312)

Starter kit—26,000—$90,518
Coils—10,800—$46,490
Regulator & terminal—8,520—$75,822
Solenoid relay shields—31,111—$152,166
Sealed lamp unit—90,000—$149,157
Starter assy. ring—28,000—$164,496
Insulator lead—47,714—$26,216
Insulator lead—47,714—$26,216
Filter, gaskets—27,377—$48,543
Bushings, insul., etc.—97,300—$26,429
Armature, frame—4,500—$108,931
Lights—20,025—$45,463
Coils—18,800—$46,490
Armatures—3,083—$75,610
Regulator kits—50,807—$223,015
Pulleys—4,931—$40,528
Screws, heads, ins.—12,240—$36,143
Facilities for mfg. elec. vehicles—$4,994,485
Distributor pin—13,108—$175,245
Fuel gage—28,324—$35,245
Capacitor—64,395—$54,679
Starter assy.—2,400—$74,278
Housing, wicks—106,211—$29,729
Distributor—20,150—$110,045
Support & coils—5,800—$29,357
Plate kit—45,506—$87,619
Pins, drive assy., generators, cups, etc.—22,491—$474,530

**Electric Storage Battery Co., Phila.**
Battery—783—$99,638
Torpedo propulsion batteries—600—$1,231,400
Storage battery—1,000—$60,650
Storage batteries—28—$25,467
Batteries—$41,732
Aircraft storage batteries—$446,720
Storage batteries—$228,856
Storage battery—39—$65,033
Batteries—21—$28,144
Batteries—76—$26,605
Batteries—1,715—$233,315

**Electronic Associates, Long Branch**
Electronic recorder—$27,769

**Emesco Mfg. Co., Detroit**
Regulator—17,754—$21,837

**Engineering Prod. Co., West Bend, Wis.**
Hand brake band—30,000—$38,700

**Engineering Specialties Co., New York**
Mufflers—115—$25,670

**Essex Mfg. Co., St. Louis, Mo.**
Switch assemblies—425—$29,061
Switch, fuel system, float, for aircraft—235—$50,011

**Evanston Mfg. Co., Detroit**
Yoke—18,135—$85,819

**Ex-Cell-O Corp., Detroit**
Repair parts for Diesel engines—9,340—$65,498

**Excelo Manufacturing Co., Alhambra, Calif.**
Hydraulic brake fluid—55,000 gal.—$103,125
Hydraulic brake fluid—80,000 gal.—$164,460

## —F—

**Fafnir Bearing Co., New Britain, Conn.**
Ball bearings—$76,650
Ball bearings—$26,114
Ball bearings—$30,280

**Fairbanks, Morse & Co., Chicago**
Diesel engine parts—38,005—$642,120
Blower conversion parts—30—$25,000
Generator sets—8—$350,000
Blower conversion parts—88 sets—$50,000

**Fairchild Engine & Airplane Corp., Hagerstown, Md.**
Misc. assemblies—$90,919
Assemblies—$700,000
Assemblies—$1,050,000
Misc. assys., sub-assys., spare parts—$2,205,463
Kits for aircraft—$100,000
Cylinder & head assy.—196—$33,901
Misc. assys. and sub-assys.—$95,278
Aviation kits—$123,314
Mobile training units—$100,000
Modification C-119 airplane—2—$500,000
Oil tank-change kits—$136,316

(*Turn to page* 318, *please*)




# "Putting the Pressure" on SPEED NUTS

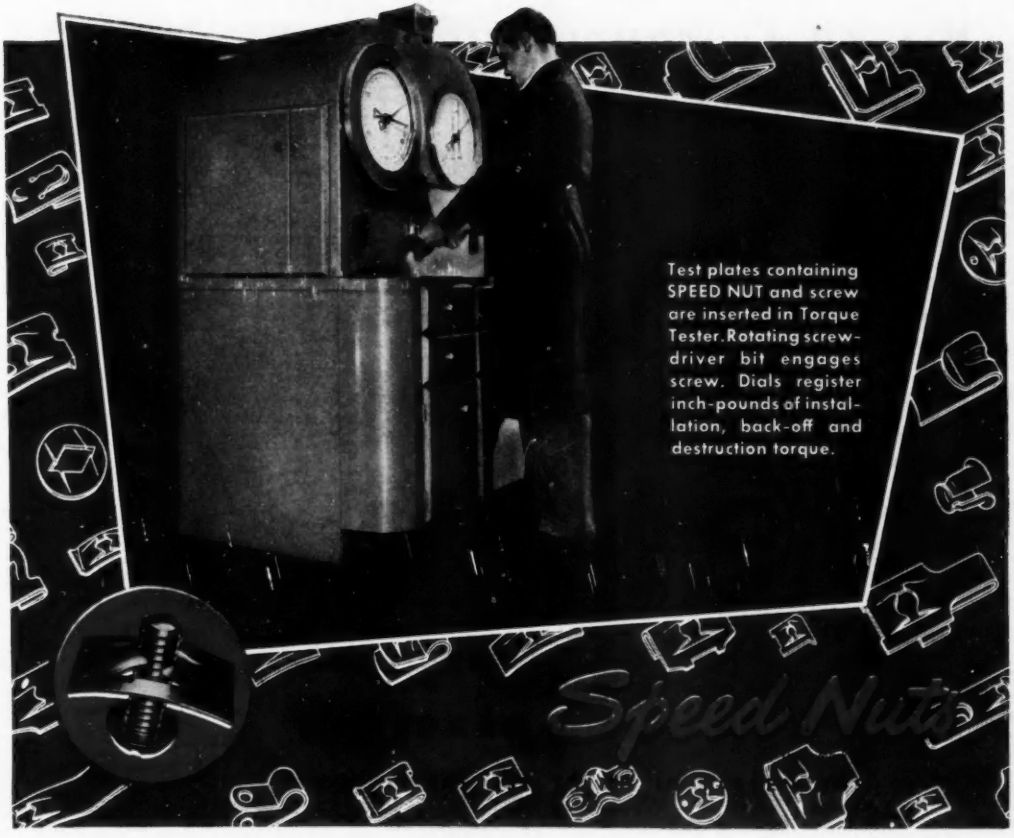
## . . . to assure highest quality fasteners for your products

*Fasteners must not fail.* They are assigned important functions in the assembly of automotive products. And it is up to the fasteners to meet this responsibility.

By way of assuring the successful performance of SPEED NUTS, Tinnerman Products has perfected a system of vigilant quality control.

A key step in these control procedures is determining the average installation torque for each SPEED NUT. This is established by the Mechanized Torque Tester, a special "torture rack" designed by Tinnerman engineers. The torque values set up by this tester assure the extreme holding power and great vibration resistance of SPEED NUTS.

This is only part of the Tinnerman quality control program. The entire procedure has been described in a new illustrated booklet, "The Story of Quality"—write for your copy. TINNERMAN PRODUCTS, INC., Dept. 12, Box 6688, Cleveland 1, Ohio. In Canada: Dominion Fasteners Ltd., Hamilton. In Great Britain: Simmonds Aerocessories, Ltd., Treforest, Wales.




Test plates containing SPEED NUT and screw are inserted in Torque Tester. Rotating screwdriver bit engages screw. Dials register inch-pounds of installation, back-off and destruction torque.

## Defense Contracts

(*Continued from page 316*)

**Fairchild Camera & Instrument Corp., Jamaica, N. Y.**
Relay for aviation armament—4,160—$192,091

**Falk Corp., Milwaukee, Wisc.**
Turbine pinion—6—Approx. $25,000
Turbine couplings—6—

**Fargo Motor Corp., Detroit**
Automobile—1,019—$1,304,484

**Farrel-Birmingham Co., Ansonia, Conn.**
Parts for reduction gears—1,512—$111,608

**Fayette Mfg. Co., Fayette, Ohio**
Strainer—310,000—$26,905

**Federal-Mogul Serv. Div., Coldwater, Mich.**
Engine crankshaft bearing set—30,000—$48,150
Bearings—28,000—$25,348
Bearing sets—93,158—$121,854

**Federal Motor Truck Co., Detroit**
Clutch, mainshaft assy.—4,507—$87,858
Blade, tappet, shaft, screw—17,019—$41,396
Plate, shoe—11,023—$268,239
Misc. carriers & end assy.—2,088—$122,164
Differential, transfer assy. flange—1,802—$270,420
Spare parts—$40,500
Hub, nut, shaft—33,358—$94,097
Bearing set—4,040—$50,096
Yoke—6,923—$53,793


# VULCAN

## RUBBER COATED FABRIC is the Perfect Diaphragm Material for COMBINATION FUEL AND VACUUM PUMPS

More and more manufacturers are now making these combination units, and more and more are using VULCAN diaphragm material.

When you specify Vulcan Coated Fabrics for fuel pumps and vacuum booster pumps, you get material that is TWO WAYS right in meeting your requirements.

The same material that has such excellent resistance to aromatic gasoline also provides the high tensile and burst strength necessary to operate the vacuum booster pump.

Wherever diaphragms are used in automotive parts, VULCAN offers the right kind of diaphragm fabric for the job. Write for literature.

**VULCAN**
**RUBBER PRODUCTS, INC.**
*(Formerly Vulcan Proofing Company)*
**FIRST AVENUE & 58th STREET • BROOKLYN 20, N. Y.**
**CHICAGO OFFICE: 333 North Michigan Ave., Chicago 1, Ill.**


Lever, shim—13,430—$70,435
Universal joint—14,000—$75,100
Shim, washer, rod—3,200—$27,453
Transmission assy.—285—$82,112
Shaft assy.—2,981—$105,875
Torque, rod assy., rear axle—1,920—$45,-120
Repair kit—626—$204,672
Propellers' shaft bearings—13,540—$37,250
Oil pump shaft—3,756—$61,576
Transfer shaft—3,925—$42,809
Pinion fork gear set—3,958—$58,276
Shock absorber—12,890—$386,700
Axles, gears—1,800—$693,154
Parts for truck tractors—$54,804
Diff. case assy.—1,000—$34,800
Joint—10,000—$55,750
Shim sets—13,252—$22,253
Front axle housing—1,040—$57,256
Cases—1,000—$204,000
Knuckles—$62,406
Front wheel hub—6,500—$162,690
Repair kit, diff.—4,500—$52,325
Input gear—10,000—$57,500
Spacer rods—21,665—$73,463
Bushings, clamps—99,560—$27,118
Support line kit—2,969—$25,483
Gears, studs, kits—6,280—$27,300
Bushing—2,337—$229,000
Front axle brake assy.—28,948—$343,995
Pins, bolts, tubes, etc.—7,446—$423,511
Snap ring, axle shaft assy., axle drive shaft—4,530—$65,608
Pintle hook—4,076—$64,960
Housing—7,369—$315,453
Flange gear—3,653—$160,612
Cylinder head—1,500—$25,950
Washers, gaskets—$83,484
Bolt—9,145—$30,821
Axle, bushing—$475,665
Kits—33,646—$218,699
Gasket, levers, shim—3,718—$193,949
Flange & manifold—9,800—$94,300
Trucks (5 ton) & parts—$14,000,000

**Federal Telecommunication Labs., Nutley, N. J.**
Antenna—$424,841

**G. Felsenthal & Sons, Inc., Chicago**
Aircraft plotter, navigation—$41,606
Dead reckoning computers—$54,500

**Felt Prod. Mfg. Co., Chicago**
Gaskets—50,000—$57,065

**Fenwal, Inc., Ashland, Mass.**
Items of fire detectors and thermo switches—$121,650

**Firestone Ind. Products Co., Akron**
Strip-S shoe, shoe assy.—63,975—$12,546,-111

**Firestone Steel Prods. Co., Akron**
Lock ring—40,000—$65,200

**Firestone Tire & Rubber Co., Akron**
Disk wheel—100,000—$3,662,000
Airplane casings & tubes—$460,861
Tires—25,700—$529,163
Tires—2,650—$190,730
Tires & tubes—3,032—$49,941
Tires—500—$117,895
Tires—26,500—$1,219,401
Aircraft casings—$146,921
Aircraft casings and tubes—$549,122

**Firestone Tire & Rubber Co., Los Angeles**
Fuel cells—$179,685
Tires & tubes—490—$9,353
Tires & tubes—1,202—$26,547
Tires & tubes—11,454—$216,162
Tires & tubes—10,645—$25,414
Fuel tanks—$1,574,370

**Fisher Engineering, Huntington, Ind.**
Transformers—$30,000

**Fisk Div., U. S. Rubber, Detroit**
Tires—6,600—$436,896

**Fletcher Aviation Corp., Pasadena, Calif.**
Sections for fuel tanks—$255,600
Fuel tanks—$3,820,947

**Flexible Tubes Prod., Detroit**
Conduit—23,334—$45,967

**Fontaine Truck Equip. Co., Birmingham, Ala.**
Wheel assy.—268—$31,088

**Foote Bros. Gear & Machine Corp., Chicago**
Brake actuator for aircraft—83—$71,209

(*Turn to page 322, please*)




# QUALITY—

## IS THE MAGNET

Over the years, AC's list of equipment customers has grown to include more than 300 automotive manufacturers. And the list is still growing.

Quality is the magnet that has drawn and held them—

Quality that matches their own high standards.

AC builds 23 lines of equipment items, as listed here. If you use one or more of them in your production, AC can undoubtedly please you in price, as well as quality.

Please address your inquiries to one of the three AC offices listed below.

AC SPARK PLUG DIVISION • GENERAL MOTORS CORPORATION

### AC OFFICES

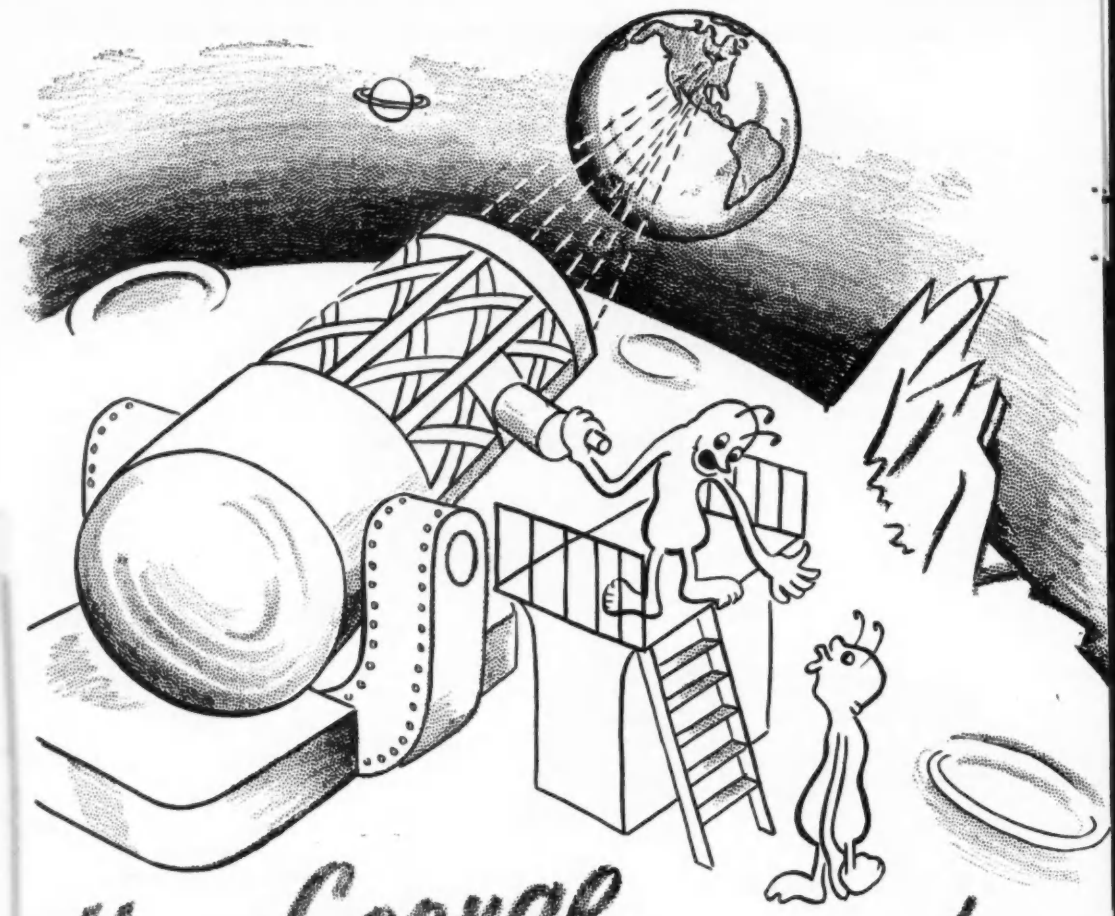
**1300 North Dort Highway**
**Flint 2, Michigan**

**Lincoln Tower Building**
**Chicago 1, Illinois**

**General Motors Building**
**Detroit 2, Michigan**

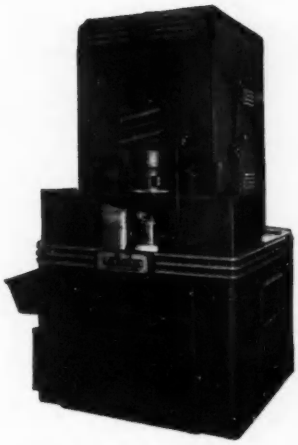
### AC CURRENTLY MANUFACTURES:

ADAPTERS (Drive)
AIR CLEANERS
AIR CLEANERS AND SILENCERS (Combination)
AMMETERS
BREATHERS (Crankcase)
CAPS (Radiator Pressure)
DIE CASTINGS (Zinc)
FLEXIBLE SHAFT ASSEMBLIES
FUEL PUMPS
FUEL AND VACUUM PUMPS (Combination)
FUEL FILTERS, FUEL STRAINERS
GASOLINE STRAINERS
GAUGES—AIR (Pressure)
GAUGES—GASOLINE
GAUGES—OIL (Pressure)
GAUGES—TEMPERATURE (Water, Oil)
OIL FILTERS (Lube)
PANELS (Instrument)
SPARK PLUGS
SPEEDOMETERS
TACHOMETERS
TERMINALS (Ignition Wire)
VALVES (Crankcase Ventilation)



# Hey, George, look what they're

| Type of part |  7-pitch, 33-tooth, ⅞" face width gear |  5½" internal gear |  7" P.D., 6-pitch gears |  ¾" OD straight spline shaft | |
|---|---|---|---|---|---|
| Production time | One Shear-Speed in 6½ hours handles production of 14 other machines in 8 hrs. ea. | 30 seconds each | 49 seconds each | 24 seconds each | |



*The Shear-Speed is also a highly versatile machine. Some producers use a single machine to produce, in turn, runs of a number of different gears.*

That's what the Michigan Shear-Speed gear shaper does. It accurately produces toothed parts in a fraction of the time required by other methods—by cutting ALL the teeth at the same time.

Gears, with or without shoulders, toothed clutches with or without interrupted teeth, straight splines, involute splines, sprockets, special toothed parts like eccentric cams or brake ratchets—all can be cut faster and at lower cost on the Michigan Shear-Speed.*

In the table below are a few typical examples. But—better than that—let us figure what kind of production you can get on YOUR gears.

**MICHIGAN TOOL Company**

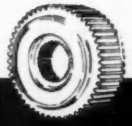
complete from blank to finished gear equipment

7171 E. McNICHOLS RD. • DETROIT 12, MICHIGAN, U. S. A.

# doing now!



## ...they're cutting ALL the teeth at the same time.

|  1¾" face, 51-tooth gear |  12 & 14 pitch interrupted tooth clutches |  Eccentric (free-wheeling cam) cut to shoulder |  6-pitch oil pump gear |  5-pitch, 15-tooth Brake Ratchets |
|---|---|---|---|---|
| 38 seconds each | 16 seconds each | 14 seconds each | 69 seconds each | 110 seconds per set of 4 |

# Defense Contracts

(Continued from page 318)

**Ford Motor Co., Detroit**
Automobile, sedan—964—$1,314,164
Facilities for production of engines—$14,700,000
Tank engines—$40,000,000
Aircraft engines & spare parts—$35,099,690
Rack assy., stakes., covers—2,340—$70,443
Buses—500—$1,986,813
Buses—1,772—$7,255,954
Trucks—10,298—$18,515,441
Trucks—5,030—$5,734,738

**Fraser Prod. Co., Alpena, Mich.**
Top cover, w/rear curtain—15,000—$311,700

**Fruehauf Trailer Corp., Detroit**
Spare parts—$59,134
Pin assy.—4,760—$34,356
Trailer, trucks—35,883—$34,786,484
Crane & hoist assy.—101—$58,620

## —G—

**The Gabriel Co., Cleveland**
Shock absorbers—103,600—$141,756
Absorbers—160,100—$206,832

**Garret Corp., Los Angeles, Calif.**
Main shut valve—218—$54,334

**Geo K. Garrett Co., Phila., Pa.**
Misc. washers—111,900,000—$197,195

**Gar Wood Industries, Wayne, Mich.**
Tighteners, tubes—4,815—$29,975
Collars, shims, gears, etc.—12,110—$77,664
Gears, case, shaft—1,550—$25,079
Lever, shaft, arm, cylinder, sprocket, rod, etc.—9,695—$215,614
Winch assy.—1,950—$101,292
Spider, worm—659—$29,219
Bolts, bushings, etc.—4,773—$28,587
Shaft, winch—240—$51,359
Bushings—1,745—$27,148
Power take-off assy.—440—$36,405
Spacer, washer, yoke, spring, etc.—7,645—$54,126
Shaft, cover, carrier—1,779—$184,284
Support, bolt, cap, drum, packing, gasket, etc.—16,883—$37,925
Tubes, pins—3,944—$181,409
Hub, sprocket, tube, case, gear lever, etc.—2,522—$30,454
Spare parts for truck tractors—$69,272
Wrench assy.—1,950—$101,292

**Gates Rubber Co., Denver, Colo.**
Tire—1,000—$59,140
Tires & tubes—10,400—$117,080

**Gear Grinding Machine Co., Detroit**
Front axle universal joint—10,411—$138,986
Shafts—$230,710
Misc. shafts—$463,894
Race, universal joints—2,476—$39,888
Shafts—$280,710
Front axle shaft—18,000—$235,475
Repair kit, axle—3,350
Front axle shaft—18,000—$235,475
Repair kit, axle—3,350

**General Development, Elkton, Md.**
Glide slope receiver—$31,920

**General Electric Co., Detroit**
Armatures—200—$34,000
Misc. lamp parts—7,901,000—$592,667
Lamps—790,000—$592,667
Dynamometer—5—$61,361

**General Electric Co., Phila., Pa.**
Ring & torque motor coil—902—$32,738
Bearing—3,920—$49,980

**General Electric Co., Schenectady**
Ball bearings—$65,760
Rotor assy.—1,065—$52,449
Coil holder—200—$31,054
Voltage regulator—1060—$54,113
Regulators—$128,865
Generators—1,777—$923,596
Aircraft generators—$1,140,014
Parts for turbojet engines—$55,424
Parts for turbojet engines—$200,000
Indicator—$88,062
Directional indicator—85—$53,618
Aircraft generator—100—$28,500
Switchettes—$28,952
Thermocouple—$26,600
Turbos, spare parts—$4,410,338
Box & filters—256—$43,729
Turbosupercharger regulator parts—$140,420
Generator tachometer—$26,900
Switchettes, relays, solenoids—$25,838
Electric tachometer—$63,141
Spare parts—$367,397
Turbosupercharges—$3,882,814
Voltage regulators—$40,637
Position indicators—$41,215
Position indicator—$33,675
AMP generators—$458,659
AMP generators—$105,950
Turbosuperchargers—$829,800
Turbosupercharger & turboregulator parts—$150,000
Maintenance parts for aircraft instruments—$25,000
Generators—200—$156,456
Vibration tester, gas turbine—$25,539
Training parts, tools, etc.—$175,000
Storage equipment—$200,000
Indicator for aircraft—371—$500,654
Indicator test unit—22—$42,086
Electric tachometer indicator—$48,048

**General Electric Co., W. Lynn, Mass.**
Indicator—$179,663
Engine spare parts—$44,995

**General Metals Corp., San Francisco**
Parts for Diesel engines—19,638—$170,039

**G. M. C. Rochester Prod. Div., Rochester, N. Y.**
Regulator assy.—466—$76,773
Cam assy. for pressure regulators—530—$28,264

**G. M. C. Cleveland Diesel Engine Div., Cleveland**
Parts for Diesel engines—129,581—$1,380,632
Necessary services—Approx. 2,000 dwgs.—$39,550
Parts for Diesel engines—202—$26,670
Vapor compressor—16—$25,000
Parts for Diesel engines—2,060—$58,102
Diesel engines—26—$26,577

(Turn to page 324, please)






# Worried about SCUFFING during the break-in period?

***Let PEDRICK engineers help you in this and other piston ring problems.***

In *two* distinct ways, Pedrick engineers have helped engine builders and engine users lick the old problem of scuffing.

In the first place, Pedrick's exclusive "Silcoating" process . . . developed by the pioneers of piston-ring coatings . . . assures an intermediate layer that prevents the split-second welds between ring and cylinder wall that cause scuffing.

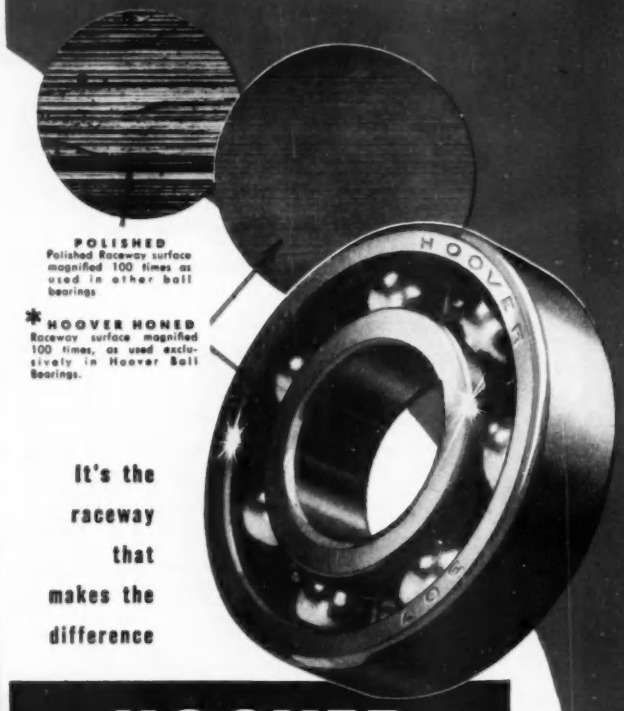
In addition, Pedrick has developed rings so conformable that they provide a new concept of efficient oil control . . . lubrication where you need it, when you need it, to prevent scuffing. These rings allow sufficient oil for proper top cylinder lubrication, yet prevent excessive oil consumption.

Pedrick engineers will be glad to work with you in overcoming such problems as scuffing. They'll demonstrate the advantages of "Silcoating," Pedrick's exclusive surface treatment of rings, especially developed to inhibit scuffing and provide longer wear. They'll show you how Pedrick rings compensate for block distortion, reduce oil consumption, and take care of your other piston ring problems. With 31 years of unvarying specialization in the piston ring field, Pedrick has the know-how to supplement your own experience and ingenuity. Address your inquiry to WILKENING MANUFACTURING Co., Philadelphia 42, Pa. *In Canada:* Wilkening Manufacturing Co. (Canada) Ltd., Toronto.

Pedrick®
"HEAT-SHAPED"
PISTON RINGS

FOR 31 YEARS, SUPPLIER OF PISTON RINGS TO LEADING VEHICLE AND ENGINE MANUFACTURERS

Nothing is as smooth as a
HOOVER HONED RACEWAY*




POLISHED
Polished Raceway surface magnified 100 times as used in other ball bearings

*HOOVER HONED
Raceway surface magnified 100 times, as used exclusively in Hoover Ball Bearings.

It's the raceway that makes the difference

HOOVER
America's only
BALL BEARING
with Honed Raceways

90% longer life
30% greater load
Amazing Quietness

The Aristocrat of Bearings

HOOVER BALL AND BEARING CO.
ANN ARBOR, MICHIGAN

## Defense Contracts

(*Continued from page 322*)

**G. M. C., Allison Div., Indianapolis**
Turbo jet engine spare parts—$44,750
Spare parts—$828,298
Spare parts—$200,000
Spare parts—$3,331,150
Turbo-jet spare parts—$2,620,000
Turbo-jet spare parts—$5,150,000
Parts for V-1710 engines—$560,000
Parts for engines used in F-82 aircraft—$150,000
Jet engine parts—$770,615
Jet engines—$43,000,000
Tank transmissions—$26,000,000

**G. M. C., Buick Motor Div., Flint**
Automobiles—28—$39,198
Tank transmissions—$65,000,000

**G. M. C., Cadillac Div., Detroit**
Engine assy.—1,000—$2,000,000
Transmission assy.—5,000
Light tank—1,381—$25,000,000
Light tanks—$110,000,000
Mid-range motor carriage & parts—489—$35,000,000

**G. M. C. Chevrolet Div., Detroit**
Trucks—6,519—$7,437,093
Automobile, sedan—1,000—$1,315,819
Truck—20—$36,559
Shoe, w/lining assy.—116,416—$135,002
Truck, pick up—1,288—$1,723,700
Trucks—426—$573,062
Automobile—189—$251,448
Trucks—94—$143,206
Sedans—13,109—$15,959,252
Pickup trucks—320—$379,046
Trucks, ½ ton—444—$677,473
Truck, ½ ton stake & platform—1,476—$2,612,053
Caps, clips, covers—26,000—$36,780
Yokes, leafs—10,600—$21,000
Gear—1,500—$26,580
Major item—30—$54,402
Kit—20,000—$78 200
Trucks—536—$834,713
Platform trucks—483—$892,659

**G. M. C. Cleveland Diesel Engine Div., Washington, D. C.**
Vapor compressor—50—$100,000

**G. M. C., Ternstedt Div. Detroit**
Range finders—$8,000,000

**G. M. C. Detroit Diesel Engine Div., Detroit**
Parts for Diesel engines—70,746—$40,397
Range finder—500—$8,000,000
Generator set, Diesel engine driven—24—$300,000
Tip, retainer, washer—33,083—$60,854
Parts, etc.—33,083—$60,854

**General Motors Corp., Detroit**
Switch, spring, etc.—12,000—$141,237
Generator sets—12—$200,000

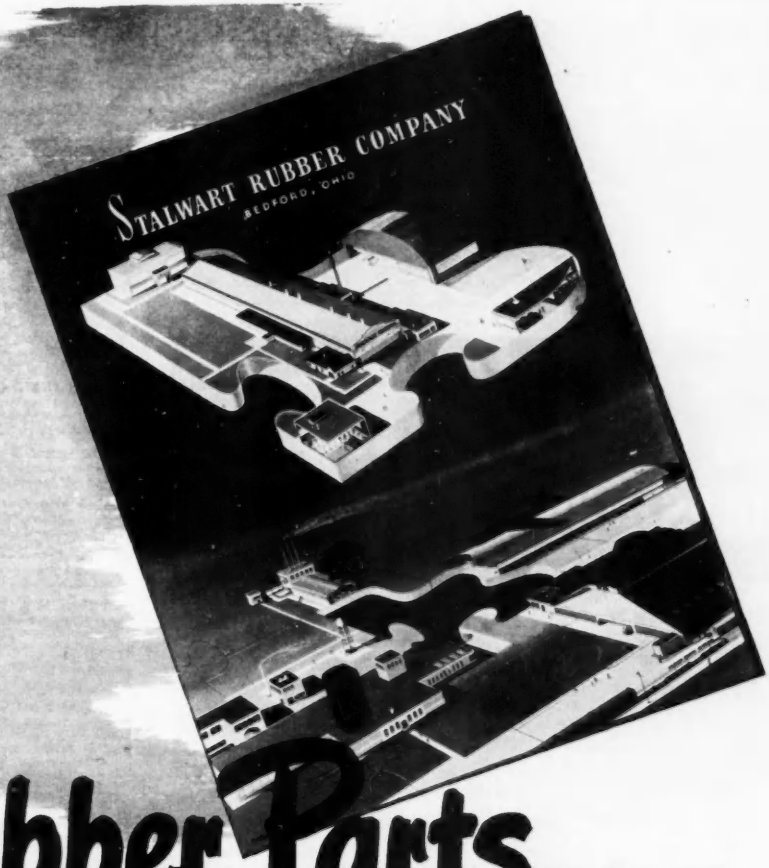
**G. M. C. Electro-Motive Div., La Grange, Ill.**
Parts for Diesel engines—26,753—$152,306

**G. M. C. Oldsmobile Div., Lansing**
Parts for 3.5 in. rockets—4,670,000—$4,580,000

**G. M. C. Pontiac, Mich.**
Felt, shim, yoke—77,000—$32,100
Engine housing—2,500—$35,775

**G. M. C. Truck & Coach Div., Pontiac, Mich.**
Automotive parts—$28,772
Harness assy.—15,500—$46,218
Adjuster, bushing—104,000—$68,370
Shaft, housing—59,947—$122,312
Hanger, cover—8,500—$28,605
Trucks—13,366—$30,000,000
Support, fork, shifter, lock—4,233,200—$97,159
Bands, bolts, levers, etc.—96,050—$80,875
Yoke, rod—9,000—$25,420
Covers—46,000—$211,527
Bolt repair kit—75,500—$277,212
Repair kit cable, harness—19,150—$43,918
Kit, steering, gear lever, screw—142,666—$99,888
Balancer, cover, etc.—120,000—$120,835
Windshield glass—2,000—$40,700
Clutch hous.—2,500—$35,775

(*Turn to page 326, please*)




# Rubber Parts...

## NEW CATALOG CONTAINS DATA ON COMPOUNDS, APPLICATIONS AND FABRICATION METHODS

This 16-page, illustrated, multi-colored catalog now is available to design, production, purchasing and management personnel. This publication has been compiled to familiarize readers with Stalwart-developed rubber compounds which feature resistance to (1) abrasion, (2) chemicals, (3) high and low temperatures, (4) petroleum products and derivatives, and (5) weathering. Sections of the catalog are devoted to the new and outstanding Silicone Rubber compounds, the major methods of fabrication, and Stalwart production facilities.

More than 60 Stalwart-developed compounds are listed by code number. Charted individually in conjunction with these compounds are their physical properties and general characteristics, as well as suggested applications.

Catalog 51SR-1 will be sent upon receipt of coupon or on letterhead request.

**STALWART RUBBER COMPANY**

**3222 NORTHFIELD ROAD • BEDFORD, OHIO**

**THE STALWART RUBBER COMPANY**

**Please send (without obligation) your new 16-page, illustrated, multi-colored Catalog 51SR-1.**

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**COMPANY** _____

**ADDRESS** _____

**CITY** _____ **ZONE** ____ **STATE** _____

## Defense Contracts

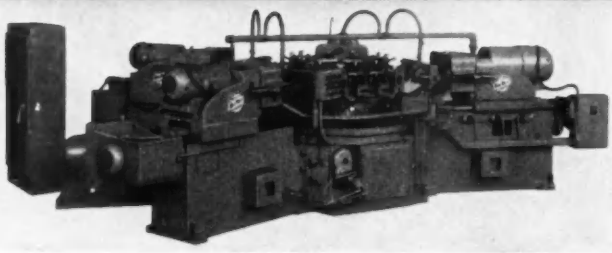
(Continued from page 324)

Fenders, panels, pans, & boards—33,850—$44,373
Drums—76,400—$150,516
Collar, seal—207,310—$130,761
Crank, tube—21,100—$35,224
Bushings—651,677—$265,550
Truck—770—$2,423,897
Front axle shim—40,000—$147,175
Steps, rods—16,300—$40,513
Clutch plate—25,000—$197,500
Bolt, caps, blades—34,000—$29,854
Covers, gaskets, manifolds—27,000—$33,510
Filter, pipes, bond—6,700—$135,830

**G. M. C. United Motors Service Div., Detroit**
Armature—1,500—$26,535
Generators—4,070—$328,856
Plugs, links—73,620—$50,087
Regulators—11,078—$65,230.98
Engines—$27,095
Distrib. kits—43,000—$88,740
Bushings, caps, armature—16,687—$33,097
Coupling, plate—32,511—$29,796
Generator regulator—7,022—$177,726
Screws—2,770—$26,189
Lead kits, etc.—10,178—$41,271
Cylinder—30,000—$35,400
Generator, condenser—500—$46,374
Bolt, cam, collar—74,659—$28,266
Gearings, race—372,517—$757,881
Generator—4,070—$328,856
Distributor kits—43,000—$88,740
Plugs, link assy.—73,620—$50,087
Bearings—57,450—$164,393
Generators, lights—5,100—$20,588
Batteries—$709,920


Drilling and Reaming
388 KING PIN HOLES PER HOUR





*Station Type Indexing Machine for drilling and reaming king pin holes.*

**On a Davis & Thompson 5 Station Machine**

This type MDT FIVE STATION INDEXING DRILLER has five fixtures mounted on the index table. Each of these fixtures holds 2 RH and 2 LH automobile front suspension support arms. Four ROTO-MATIC Power Heads, each having four spindles, perform the following operations:

1. Drill 53/64" dia.—Half way through.
2. Drill .823" dia. — Balance of way through.
3. End Cut Ream .8547/.8550" — Full length of hole.
4. Finish Ream.8635/.8637"—Full length of hole.
5. Load and Unload.

Two RH and two LH pieces are completed at the end of each cycle. Cycling is automatic, and, operator loads and unloads during machine cycle.

**4 New Davis & Thompson Mechanical Power Heads**

Included in the design of this machine are the new ROTO-MATIC Mechanical Electrical Power Heads operated through screw feed. An important safety feature of these units is the patented overload release clutches on the feed. Because of the simplicity of their design the units require a minimum of servicing.

**Free Data**

Will be furnished on request.

DAVIS and THOMPSON Roto-Matic

Davis & Thompson Company
6411 W. BURNHAM ST., MILWAUKEE 14, WISCONSIN


Link—28,000—$33,400
Breaker, housing—59,450—$50,213
Wicks, washers, studs—54,517—$30,419
Thermostat—109,970—$47,086
Boots, cover, screws—39,400—$119,468
Absorber—8,100—$34,870
Roller bearings—18,225—$34,136
Roller bearings—25,250—$71,135
Switch, coil—11,333—$31,082
Switches—$42,734
Repair kit—100,000—$159,368
Regulator—$45,929
Washer, straps—42,049—$26,869
Starter, switch—3,600—$72,235
Starter motor—5,508—$113,033
Plugs, links—73,620—$50,087
Bearings, valves—372,517—$757,881
Distrib. kits—$88,740
Distrib. generator—8,632—$250,833
Generator head—21,161—$33,776
Engine starter—2,010—$131,996
Motor switch—12,517—$65,750
Washer repair kit—37,843—$38,765
Distributor, shaft base—509—$31,420
Absorber—16,660—$77,302
Spotlight—4,000—$38,000
Repair kit, generator—25,067—$69,188
Starter housing stud—31,430—$52,741
Storage battery—2,400—$77,016
Storage battery—2,400—$77,016

**General Tire & Rubber Co., Akron**
Tires—39,830—$1,452,032
Aircraft casings—$123,042
Vibration insulators—$44,648

**Gentz Tool & Engr., E. Detroit, Mich.**
Exhaust manifold—500—$47,500
Insert—90,165—$119,017

**Gibson Mfg. Corp., Longmont, Ohio**
Fork trucks—256—$85,978
Fork trucks—338—$992,966

**Gilfillan Bros., Inc., Los Angeles**
Azel indicator equipment—$4,529,818
Components of radar set—$44,135

**Gill Elec. Mfg. Corp., Redlands, Calif.**
Battery—4,600—$224,216
Battery—7,800—$265,434
Battery—7,033—$420,689

**Glendale Machine & Tool Co., Detroit**
Misc. retainers—1,265—$29,400

**Globe Aircraft Corp., Joliet, Ill.**
Maintenance parts for pulse jet model—48,000—$163,234
Starter assy. and installation—30—$25,169

**Globe Hoist Co., Phila., Pa.**
Pneumatic lift—70—$39,900

**B. F. Goodrich Co., Akron, Ohio**
Aircraft casings & tubes—$64,620
Deicer shoes—$31,000
Tube assy. for aircraft—3,935—$74,659
Wheel assy.—192—$65,598
Misc. deicer shoes for aircraft—$1,278,258
Tube assy. used on brake—1,190—$29,012
Misc. deicer shoes—$752,474
Wheel assemblies—$46,551
Strip-8 shoe, shoe assy.—97,808—$5,704,868
Deicer shoes—$165,000
Aircraft casings and tubes—$52,874
Wheel assy.—130—$112,444
Misc. deicer shoes—$340,415
Deicer shoes—$302,052
Tube assy.—850—$52,514
Aircraft parts—$127,751
Wheel & brake assemblies—$125,180
Tires & tubes—18,600—$743,154
Fuel cells—$49,650
Deicer boot—190—$73,535
Aircraft casings—$151,134
Wheel and brake assys.—$614,709
Wheel—$2,281,150
Fuel cells and deicer shoes—$120,000
Truck tire—4,060—$35,533
Tires and tubes—6,575—$108,795
Tires and tubes—5,615—$25,211
Torsilestic springs—6,710—$67,100

**Goodyear Aircraft Co., Akron, Ohio**
Spare parts—$62,205
Tow target—$297,120
Envelope—7—$832,666
Tank assy.—$1,205,663

**Goodyear Tire & Rubber Co., Akron**
Disk used on brake assy.—550—$30,371
Wheel assemblies—$38,709
Tires & tubes—93,169—$6,161,096
Wheel & brake assys.—$1,967,013
Camelback—206,000 lb—$47,132
Wheel and brake assys.—895—$61,104
Wheel and brake assys.—$36,776
Airplane casings & tubes—$367,220
Strip-8 shoe, shoe assy.—63,975—$12,546,111

(Turn to page 328, please)

# *Put these* TWIN ARCS *of* CONSTANT VISION *between drivers and* TROUBLE!




## AMERICAN BOSCH
## DIRECT ELECTRIC DRIVE DUAL WINDSHIELD WIPERS

When the weather turns bad, that's when Car and Truck owners need constant, good vision on the road. You can put them on the clear route to safety with American Bosch DIRECT ELECTRIC DRIVE Windshield Wipers. Regardless of engine speed, load or acceleration, they *always* function with unfaltering, synchronized action, because they operate independently of the engine. There's no lag or stuttering of the wiper blades, even in the roughest weather.

Ask about Model WWB—designed for swift, simplified dual installation under cowl. Rugged, heavy duty American Bosch construction guarantees years of trouble-free service. Already in wide use as original equipment, these Dual Electric Wipers offer a keen, sales-active feature for your Line. Ask for complete specifications.

*Also Available—the famous WWA Single Electric Wiper for Truck, Bus, and Marine service.*

- **Direct, electric drive with constant action regardless of engine load or speed.**
- **Synchronized, two speed operation of Dual arms and blades. Tandem or opposed wiping motion.**
- **Fully automatic blade parking, adjustable to suit installation. Arms up to 12" long. Blades up to 14". Wiping angle up to 118°.**
- **Bad weather power—30 inch/lbs. torque per blade. Thermal cutout protects wiper motor against overload.**
- **Available for 6, 12 or 24 volt systems. For cars, trucks and tractors.**

# American Bosch

MAGNETOS • GENERATORS • VOLTAGE REGULATORS • IGNITION COILS
ELECTRIC WINDSHIELD WIPERS • DIESEL FUEL INJECTION EQUIPMENT

AMERICAN BOSCH CORPORATION • SPRINGFIELD 7 • MASS.

# How an ALLITE* DIE




This Allite die—for experimental sections of an automobile fender—is typical of the many produced in Allied's well-coordinated foundry and die shop. Because of the intricacy of the draw and unusual contours of the part, the precision cast Allite die provided a simple and economical method of developing the proper die design.

And, in addition to these savings, the experience gained in fabricating and pre-testing of this inexpensive Allite die also aided considerably in reducing the cost of the permanent steel die later built for volume production of the part.

We can show you many other examples of how close coordination of foundry and die shop facilities results in lower tooling costs, better built tools, faster production starts. Why not write us today for the full story on *all* the advantages of Allite dies. They may hold the solution to your experimental or production die problems.

PRECISION · EXPERIENCE · DEPENDABILITY
ALLIED CORPORATION PRODUCTS

*ALLITE
die are precision cast for low cost tooling. The material used is one formula of zinc alloy (Kirksite, Dy-Mastal, etc.) which meets your requirements.

**ALLIED PRODUCTS CORPORATION**
**RICHARD BROTHERS DIVISION**
DEPARTMENT A-3
12645 BURT ROAD • DETROIT 23, MICH.

HARDENED AND PRECISION GROUND PARTS • STANDARD CAP SCREWS • SPECIAL COLD FORGED PARTS • SHEET METAL DIES FROM THE LARGEST TO THE SMALLEST • ALLITE ZINC ALLOY DIES • JIGS • FIXTURES • R-B INTERCHANGEABLE PUNCHES AND DIES


## Defense Contracts

(*Continued from page 326*)

Airplane casings & tubes—$38,575
Airplane casings & tubes—$367,220
Wheels and brakes—$220,395
Tires—13,200—$997,350
Tires—8,890—$215,595
Tubes—7,350
Wheels & brakes—$129,469
Brake disk—16,192—$61,182
Wheels & brakes—$44,894
Fuel tanks—$1,562,708
Tires—7,293—$762,589
Nose wheel assys.—$28,569
Wheel & brake assys.—$196,156
Cylinder, brake, & wheel assy.—690—$84,653
Tires—10,930—$459,616
Wheel & brake assys.—$1,683,698
Wheel & brake assys.—$1,300,950
Tires—2,119—$215,318
Cell assemblies—90—$42,109
Gas hose—$69,311
Aircraft casings and tubes—$143,204
Aircraft casings—$212,375
Wheels and brake assys.—$53,760
Wheels and brakes—$108,042
Wheels and brakes—$113,500
Wheels—$53,748
Wheel and brake assys.—$172,620
Brake assys.—300—$74,983
Fan belt—12,000—$26,520
Tires—1,600—$58,258
Tubes—36—$248
Tires, tubes—2,868—$50,835
Tires, tubes—7,418—$90,776
Tires, tubes—1,670—$78,884
Tires, tubes—1,627—$7,149

**Gould Natl. Batteries, St. Paul, Minn.**
Batteries—70,000—$1,258,600
Batteries—1,255—$64,005
Aircraft battery—$165,535
Storage batteries—44—$73,004
Storage batteries—20—$35,667

**Grand Central Aircraft Co., Glendale, Calif.**
Rehabilitation of F-51 aircraft and overhaul of V-1650 type engines—$6,884,460
Overhaul of aircraft engines—$1,884,460
Recondition aircraft—$19,220,000
Overhaul aircraft items—$2,835,000

**Great Lakes Mfg. Corp., Hammond, Ind.**
Aircraft windows, Plexiglas—$78,409

**Green Ball Bearing Co., Cleveland**
Bearings—83,423—$55,411

**Greenleaf Mfg. Co., St. Louis, Mo.**
Airspeed indicator—$25,252

**Grimes Mfg. Co., Urbana, Ohio**
Cam and plate assy.—90—$12,494
Control—160—$34,298
Light assys.—$96,352

**P. L. Grissom & Son, Inc., Detroit**
Nipple—7,710—$68,166
Pinion, shaft, plate—17,150—$83,871
Rod, seal, outlet screw—101,635—$119,048

**Grumman Aircraft Engr. Corp., Bethpage, N. Y.**
Hammock and liner assy.—111—$489,014
Maintenance sheet—175—$26,706
Maintenance parts—129—$70,485
Strut assy. for aircraft—494—$27,236
Parts, modification kits, assys. for aircraft—$95,000

**Guaranteed Parts Co., Seneca Falls, N. Y.**
Distributor cap—195,882—$65,032

**Guardian Electric Mfg. Co., Chicago**
Control assembly—$27,273

**Guide Lamp Div., GMC, Anderson, Ind.**
Lights—30,182—$168,944
Sleeve assy., headlight mounting—38,990—$31,772
Light assy.—25,062—$41,913

## —H—

**Hallett Mfg. Co., Inglewood, Calif.**
Engine parts—2,710—$87,464
Diesel generator—37—$150,000
(*Turn to page 330, please*)

# CARMET

## can solve *YOUR* *Wear-Resistance* problem




**● WHAT JOBS HAVE YOU FOR CARMET CARBIDES TO DO?**

For maximum wear, save with Carmet—preformed to practically any shape or size! *Examples:* entire blanking die parts; inserts for drawing, heading, extruding and blanking dies; gauge and wear parts, pins, bushings, etc. *Supplied Preformed*—with minimum grind stock allowed, or precision ground and ready for use. Let us work with you . . . send us your drawings and specifications for quotations. ● *Allegheny Ludlum Steel Corporation, Carbide Alloys Division, Detroit 20, Michigan.*

**For complete MODERN Tooling, call**

# Allegheny Ludlum

AL FINE TOOL STEELS SINCE 1854

W&D 3466

# Defense Contracts

(*Continued from page 328*)

**Hamilton Std. Div., United Aircraft, E. Hartford, Conn.**
Overhaul and modification of GFP oil control assys.—$502,840
Titanium alloy blade design—$212,294
Turbo-hydromatic propeller—$128,645

**Hammond Mfg. Co., Pasadena, Calif.**
Type K-1 trailers—$68,076
Shipping containers for aircraft engines—1,000—$561,000

**Harrisburg Steel Corp., Harrisburg**
Cylinder assemblies—$214,026

**Harrison Radiator Div., Lockport, N. Y.**
Bolts, outlets brackets, gaskets—$33,010

**Hartman Elec. Mfg. Co., Mansfield, O.**
Cut-outs and relays—$80,869
Cut-out, reverse current—$72,617
AMP reverse current cutout—$175,763

**Hartzell Propeller Co., Piqua, O.**
Propeller blades—$26,013

**Hawk Tool & Engr., Clarkston, Mich.**
Connector, spacer, track—81,120—$82,758

**Hazeltine Electronics Corp., Little Neck, N. Y.**
Spectrum analyzer—22—$63,311

**Heil Co., Milwaukee, Wis.**
Shaft, winch worm, case—4,785—$34,632

**Heim Co., Fairfield, Conn.**
Bearing—$36,900

**James C. Heintz & Co., Cleveland**
Vulcanizer—1,590—$80,577

**Hercules Engineering Co., Detroit**
Bumper bar—15,000—$26,100

**Hercules Motor Corp., Canton, O.**
Hercules engine parts—9,711—$27,426

**Herman Nelson Div., Am. Air Filter Co., Moline, Ill.**
Blowers, spare parts—$63,984

**Hewitt Robins Inc., Buffalo, N. Y.**
Hose—12,000 ft—$67,700

**Higgins Inc., New Orleans, La.**
Amphibious hydraulic jet vehicle—1—$55,750

**Highway Trailer Co., Edgerton, Wisc.**
Truck V-18—53—$50,000

**Hill Diesel Engine Corp., Lansing, Mich.**
Generator sets—$750,000

**Hobart Brothers, Inc., Troy, O.**
AC engine generator sets—$240,881

**Holland Hitch Co., Holland, Mich.**
Hook assy.—1,416—$27,116
Pintle, housing—5,350—$76,118
Pintle—2,010—$119,796
Hook & pintle—6,500—$31,150

**Holley Carburetor Co., Detroit**
Services and material—$150,000
Control assys.—200—$83,000

**Ernest Holmes Co., Chattanooga**
Transmission case—355—$114,665

**Homelite Corp., Port Chester, N. Y.**
Cylinder, w/liner and studs—7,858—$136,462
Switch, coupling—9,538—$85,589
Armature—106—$54,163
Flywheel housing—1,550—$25,156
Generator—500—$183,460

**Houde Engineering, Buffalo, N. Y.**
Shimmy damper—337—$126,945
Link—2,960—$28,717
Shock absorber kits—329—$26,096
Shimmy damper for aircraft nose wheel—85—$34,871

**Hoyer Prods. Co., Belleville, N. J.**
Tachometer—$31,476

**Hunt-Spiller Mfg., South Boston, Mass.**
Brake drum—3,745—$52,242

**Hughes Aircraft, Culver City, Calif.**
Overhaul of radar—$200,000
Antenna assy.—$33,067

**Hycon Mfg. Co., Pasadena, Calif.**
Engineering changes to A-14 magazines—$63,161

**Hydro-Aire, Inc., Burbank, Calif.**
Valve seat—1,585—$28,469
Valves, filters—512—$63,514
Switch plate assy.—254—$40,681

**Hydro-Aire Corp., Teterboro, N. J.**
Valve—265—$78,291

## —I—

**Industrial Facil. Co., Auburn Hts., Mich.**
Studs—62,600—$31,186
Adapter, plugs, studs, shafts, etc.—37,024—$308,989
Shaft—1,250—$50,700

**Ingersoll Rand Co., New York, N. Y.**
Engine driven compressor—31—$55,432
Compressors—$307,977

**Inland Equipment Co., Stockton, Calif.**
Spare parts, tractors—15 sets—$49,875

**Inland Rubber Corp., Chicago**
Tires—23,000—$928,510
Tire—6,000—$229,500

**International Harvester Co., Chicago**
Bus, 27 passenger—350—$1,765,653
Bearing—20,000—$34,932
Trucks—3,050—$8,000,000
Automotive parts—2,993—$30,738
Transmission assy.—100—$40,750
Shackle nuts, pins, bolts—48,265—$47,914
Bushings, caps, clips—50,400—$41,021
Hub retainer—11,350—$27,514
Heads—$62,383
Engines—700—$803,669
Transmission cover—1,200—$121,339

(*Turn to page 332, please*)





**MODERN HEAT TREATING PROCESSES REQUIRE UP TO DATE EQUIPMENT AND METHODS**

Reevelec Induction and Dielectic heating equipment incorporates the latest advances of engineering and design. Reevelec machines are tooled and set up to do your job efficiently and economically.

**HIGH SPEED INDUCTION PROCESSING OF MACHINED PARTS**

Reevelec semi-automatic Induction Heating equipment is used by many progressive automotive parts and equipment manufacturers. It is available in several sizes and many flexible arrangements to handle any possible job.

Equipment is also available for soldering, brazing, drawing, annealing and any other process where metals must be heated accurately and in production quantities. It will pay you to investigate. Write, call or wire.

REEVE ELECTRONICS INC.
605 W. LAKE ST. CHICAGO 6, ILL. RA. 6-9755

# DESIGNED TO OUTPERFORM THEM ALL!

# The PERMITE "Permatrol" PISTON

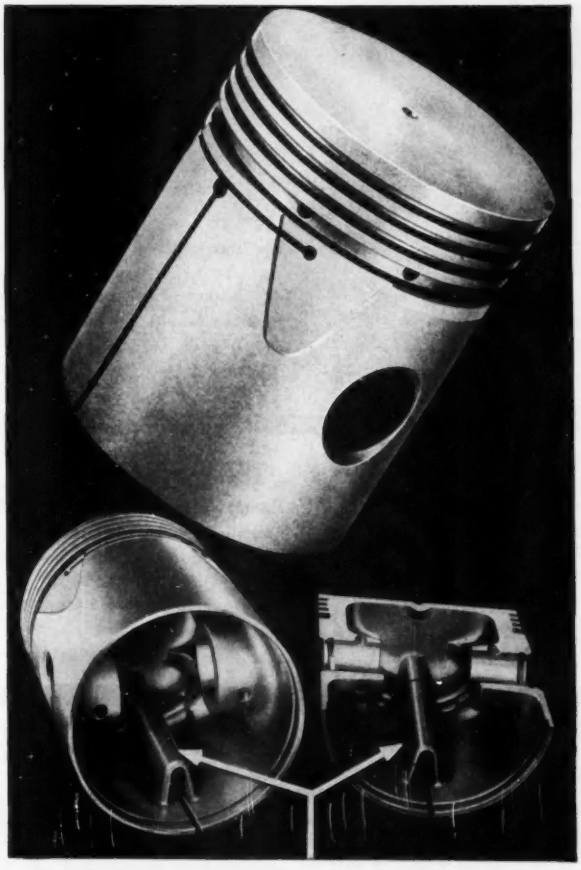
**PERMITE'S ALUMINUM ALLOY PISTON WITH V-BRIDGE STRUCTURE . . .**

- ★ **PROVIDES UNIFORM SKIRT EXPANSION AND CONTRACTION**
- ★ **IMPARTS STRENGTH AND STABILITY TO THE PISTON — PREVENTS SKIRT COLLAPSE**
- ★ **MAINTAINS CONSTANT MINIMUM CLEARANCE FOR FULL POWER PERFORMANCE**

THE Permite "Permatrol" Piston combines *all* the advantages of *both* solid and split skirt piston construction!

It is designed with a "V" structure, cast integral with the skirt, that bridges the vertical slot cut in the minor thrust face. This "V-Bridge" controls expansion and contraction under all operating conditions, without danger of skirt collapse. It eliminates high pressure areas and makes possible almost perfect bearing contact of the skirt. It allows slot construction without "high spotting" and "skirt flexing" and permits the piston to operate with *minimum clearance,* whether the engine is hot or cold.

Cast by the Permite permanent mold process, the "Permatrol" Piston is unsurpassed in design and quality of material and construction. Investigate this outstanding piston design for your engines. Our engineering and consulting staffs will gladly supply complete data on request.



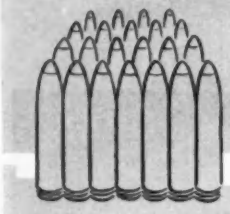
● *"V-Bridge" structure of the "Permatrol" Piston provides permanent control of skirt expansion and contraction.*

**ALUMINUM INDUSTRIES, INC.**

CINCINNATI 25, OHIO

ALUMINUM PERMANENT MOLD, SAND and DIE CASTINGS...HARDENED, GROUND and FORGED STEEL PARTS

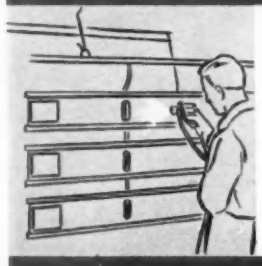
# LET *Detrex* HELP MEET GOVERNMENT SPECIFICATIONS



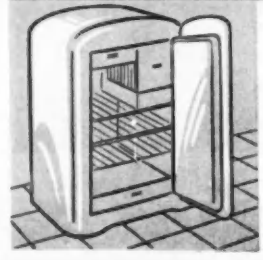
● Ammunition must be produced faster than ever before! Regardless of processing specifications, Detrex can furnish equipment or chemicals to meet ordnance requirements.



● Where military orders call for metal parts to be rustproofed, Detrex PERM-COTE (phosphate coating process) will produce results beyond specifications.



● Finishing departments operate efficiently when paint spray booths are functioning properly. To secure maximum production hours, precoat booth walls with Detrex PRD or VINCOTE. Paint overspray then becomes a minor maintenance problem.



● For cleaning prior to painting, plating, heat-treating, or inspection, finishing superintendents depend upon Detrex products and processes for both defense and civilian goods. For complete information on degreasing, alkaline and emulsion cleaning, rustproofing, contact Detrex now!

104A

DETREX Corporation
BOX 501, DETROIT 32, MICH.


## Defense Contracts

*(Continued from page 330)*

Cap, joint—8,880—$54,555
Bolts, nuts, gage kit, etc.—33,625—$82,342
Truck, tractor—545—$2,965,778
Truck, 2½ tons—691—$2,296,745
Nuts, axles—$41,756
Engines—700—$803,669
Engine cylinder sleeve—15,000—$73,800
Covers—9,600—$28,400
Gears, jacket, tubes—605—$35,964
Differential, gears, etc.—339,000—$37,549
Dump truck—$34,136
Engine—700—$803,669
Filters, etc.—14,862—$26,682
Trucks—13—$27,801
Trucks—1st—$1,010,710
Truck, 5 ton—20—$113,411
Spare parts—1 set
Combat and other military vehicles—$393,000,000

**International Products & Mfg. Co., Chicago**
Repair kit—43,917—$30,937

**Int'l Spare Parts Corp., L. I. City, N. Y.**
Bearings—2,910—$31,781
Rod—6,440—$113,279
Flywheel—2,008—$127,688
Engine—400—$938,236
Oil pump, gear, pin—17,842—$27,134
Crankshaft flange, bolt—130,625—$27,308
Misc. coils—10,066—$31,007
Blade, housing—4,700—$49,048
Bearing—8,421—$33,599
Governor—6,118—$398,869
Rods, elements—2,583—$26,275
Wheel w/ring—2,325—$51,419
Adapter, arms, bolts, etc.—63,774—$430,882
Shaft assy, spindle sleeve—7,955—$28,720

### —J—

**J & L Steel Barrel Co., New York, N. Y.**
Shipping container—58,425—$153,231

**Jack & Heintz Precision Ind., Cleveland**
Aircraft starter—$64,738
Starters—145—$75,766
Aircraft starters—1,055—$381,924
Service & material—460—$30,000
Starters & adapters—$132,701
Generators—$1,163,808
Starters—$71,416
Generator, tachometer—$67,360
Generators—$240,000
Aircraft starter—120—$48,756
Aircraft starter—$52,043
VA inverters—$71,505
VA inverters—$122,265
Aircraft starter—$177,350
VA inverters—$519,702
VA inverters—$268,200
Spare parts & assys.—$25,000
Aircraft starters—$58,310
Assy., subassys.—$25,000
Speed governor—$26,250
Actuator assy., wing flap—$84,749

**Jacobsen Mfg. Co., Racine, Wis.**
Engine-generator—$75,000

**Jacques Power Saw Co., Denison, Tex.**
Trailers—2,330—$768,620

**Jefferson Chevrolet Co., Detroit**
Shaft shifter carrier—18,300—$36,103
Cylinder—30,000—$285,500
Starter, foot, button—51,212—$38,631

**E. M. Joesam Co., Inc., Boston, Mass.**
Misc. screws—62,495 gross—$27,002
Screws—36,483—$26,030
Screw—450,000—$12,246
Screws—$28,850

**Jubilee Mfg. Co., Omaha, Nebr.**
Steering gear—25,000—$44,940

### —K—

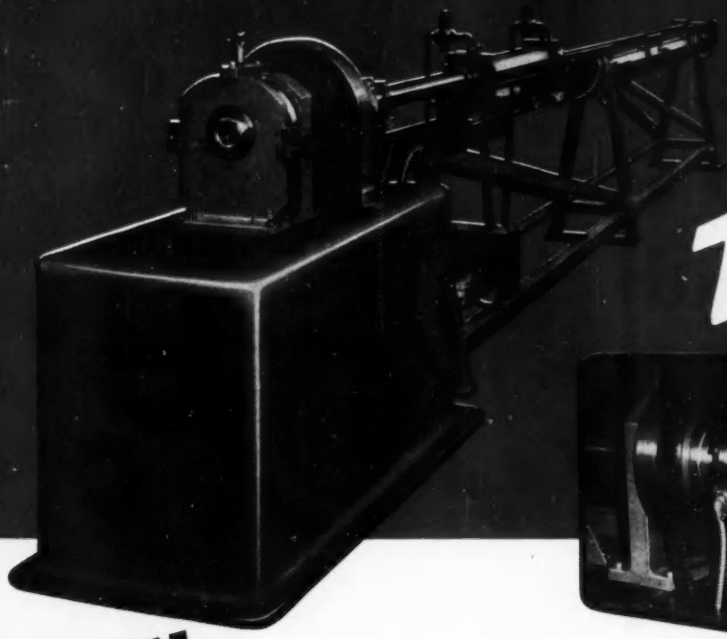
**K. D. Lamp Co., Cincinnati, O.**
Lamp lens, red—57,500—$28,801

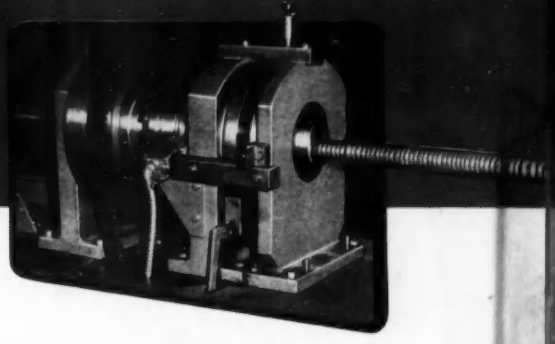
**Kaiser Alum. & Chem. Sales, Chicago**
Aluminum alloy sheets—136,000 lb—$45,453

**Kaiser-Frazer Corp., Willow Run, Mich.**
Facilities for production of airplanes—$10,000,000
Cargo planes—$200,000,000

*(Turn to page 336, please)*

# Looking for a Better Way to Cut Tubing?





## NEW DUNCAN-McKAY TUBE CUTOFF IS YOUR ANSWER . . .

### CHECK THESE OUTSTANDING FEATURES

- √ SIMPLICITY OF DESIGN..... With economy in mind.
- √ SIMPLICITY OF SET UP..... Ordinary shop personnel entirely competent after brief instruction.
- √ SIMPLICITY OF OPERATION..... Fully automatic—fool-proof.
- √ SPEED OF OPERATION..... Rates as high as 60 cuts-per-minute, depending on length of cut tube.
- √ NO LOSS OF METAL..... Tube wall is sheared—no metal removed.
- √ QUALITY OF CUT..... Practically burr free.
- √ TUBE STATIONARY DURING CUT.. Eliminating chances of marking.
- √ CONCENTRICITY OF TUBE..... Original concentricity maintained.
- √ LENGTH TOLERANCE..... Positive stops control travel of feed cylinder—close length tolerances easily maintained.
- √ TOOLING ..... Simple, concentric dies—easily produced in your own tool room.
- √ LOW MAINTENANCE..... Early models have been in continuous operation—over 2,000,000 cuts with only occasional die grinding required.

**The McKAY MACHINE Company**
YOUNGSTOWN, OHIO

McK

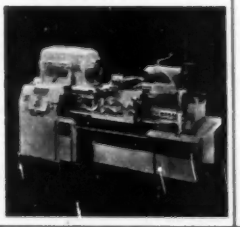
ENGINEERS AND DESIGNERS OF EQUIPMENT FOR THE AUTOMOTIVE, FABRICATING AND STEEL INDUSTRI

# Keep in Step with Monarch and Keep Ahead of Obsolescence



**13" MODEL 70 TOOLMAKER'S LATHE**

The lathe that has everything. The ultimate for master toolmakers. Unequalled for accuracy, speed and convenience of operation. Features include—speed range of 12 to 2000 R.P.M., develops up to 20 H.P. depending on speed, four directional rapid traverse and built-in constant surface cutting speed. Tailstock hydraulically operated and easily repositioned.

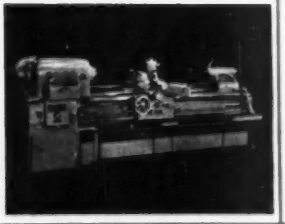


**SERIES 60 ENGINE AND TOOLMAKER'S LATHES**

In 12", 14", 16" and 20" swings. Offering such typical Monarch features as totally enclosed end gearing and gearbox—automatic pressure lubrication—all anti-friction bearings—hardened helical gears in headstock—American Standard Camlock Spindle Nose—flame-hardened and ground integral bedways—hardened alloy steel working parts.

**THE AIR-GAGE TRACER**

Turn, bore or face using a flat or a round template. With or without fully automatic cycle and infinitely variable feed. Applicable to complete range of sizes from 10" to 32" swing.



**ROLL TURNING LATHES**

For the contour turning of steel mill rolls from a template. Reduces turning time up to as much as 75 to 85%. Closer accuracy which can always be duplicated exactly. Eliminates the need for hundreds of expensive form tools. Much easier to operate than conventional roll turning lathes.





THE MONARCH New Development Building—where tomorrow's lathe developments are planned today!

**WHEN YOU LOOK** more closely at the Monarch lathes below, there are two important points to keep in mind. First, you'll find in them every desirable production and design feature required to meet the highest standards—features playing a basic performance part in a line of lathes noted for improved accuracy, faster production and longer life. Secondly, it will pay you to remember that, while many of these features are now standard in the industry, *every one of them was developed and first introduced on Monarch turning equipment.*

**MONARCH USERS,** in other words, have through the years been first to benefit from each of these developments. And they've benefitted doubly. Through cost reduction and product improvement on one hand. On the other, through the purchase of lathes destined for a longer, unrivalled production life.

**AS A MONARCH BUYER TODAY,** you face the same enviable prospect. Our company, founded in 1909 and built on the principle of continuous research and development, devotes a major portion of its energies today to that principle. Our New Development Building, with its equipment and staff, is the physical symbol of our determination that the lathe improvements of tomorrow will appear first on Monarch products. It implements our promise that you can always rely on Monarch for the turning equipment to assure you peak production at minimum cost to keep you ahead of the parade . . . . . *The Monarch Machine Tool Company, Sidney, Ohio.*

**TOOLMAKER'S LATHES • ENGINE LATHES • TRACER-CONTROLLED PRODUCTION LATHES**
**ROLL TURNING LATHES • AIR-GAGE TRACER, MOTOR-TRACE & KELLER CONTROLS**

# Monarch

ACCURACY • ECONOMY • LONG LIFE

## TURNING MACHINES

## FOR A GOOD TURN FASTER . . . TURN TO MONARCH

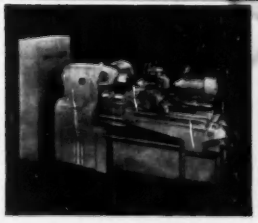
### THE SHAPEMASTER ENGRAVER

Here is a lathe that reduces the expensive and time-consuming art of hand engraving to the speed and repetitive accuracy of machine tool operation. Will reproduce any design detail which can be touched by the sharp point tool employed. A cost reducer of great importance for the producing of intricate molds in the glass, plastics and mechanical rubber industries.



### THE MONA-MATIC

A new and outstanding successful approach to production metal turning. Use of a single running tool speeds production, slashes tool costs, tool change time, and setup time, increases accuracy and often halves time required for subsequent grinding operations. Available with magazine load.





### MOTOR-TRACE CONTROLS

The ideal tracer control for most step shaft work. This, with the "Air-Gage Tracer" and Keller Controls, provides Monarch users with a choice of either one of three distinct types of tracer control.



### THE SPEEDI-MATIC

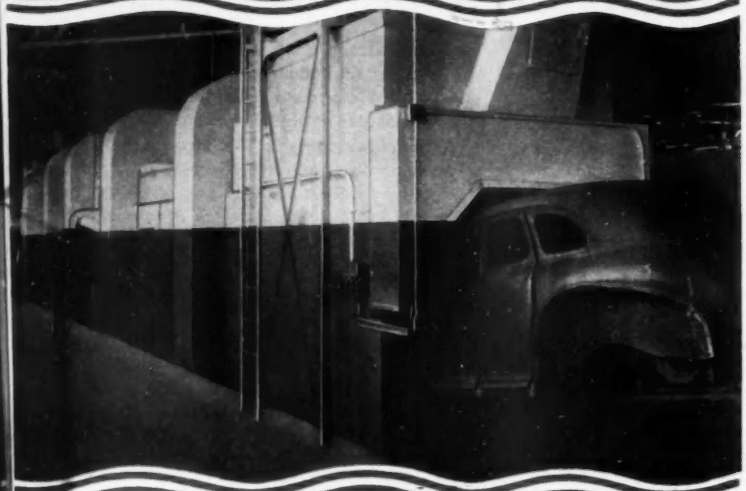
A fast, precision, electronically controlled hand screw machine. Short setup time makes it practical for quantities of 25 or less—up to 3000 or more. As many as nine different speeds and six different feeds may be preselected to become operative at proper time in cycle. Suitable for first or second operation work. Speed range—40 to 4000 R.P.M.

Engineered to your production

Schmieg

CENTRI-MERGE

OVENS



Any Size, Shape, Type

FOR EVERY KIND OF WORK

Whatever your requirements, Schmieg drying and baking ovens are designed and engineered to give you highest efficiency at lowest operating and maintenance cost.

Conveyor or box type, for any installation arrangement, compactly designed to save valuable floor space, engineered to fit smoothly into your production plan, Schmieg ovens *make it easy* for you to turn out the very best paint jobs.

Schmieg ovens give you automatic temperature control, insure against hot spots, are meticulously insulated to prevent heat loss. Every operating essential has been carefully designed and engineered to enable you to safeguard product quality.

So we say—No matter what size, shape or type of oven you may need, for any kind of work, Schmieg ovens give you most for your money.

*Consult Schmieg engineers today.*

THE best AIR PURGE is CENTRI-MERGE

Schmieg INDUSTRIES INC.

Engineers & Manufacturers

310 PIQUETTE AVENUE • DETROIT 2, MICHIGAN

## Defense Contracts

(*Continued from page 332*)

**Kearfott Co., Inc., New York, N. Y.**
Components of compass—$1,872,016

**Kehrig Mfg. Co., Utica, Mich.**
Cab, closure—69—$36,838

**Kelly-Springfield Tire Co., Cumberland, Md.**
Tires—479—$70,533
Tires—14,564—$695,151
Tires—1,500—$68,280
Tires—2,300—$32,390

**Kenworth Motor Truck Corp., Detroit**
Trans. shim set—21,800—$25,724

**Kenworth Motor Truck Corp., Seattle**
Power takeoff, gear set—1,180—$41,453
Trans'er assy.—100—$29,319
Sleeve, axle, arm, etc.—1,552—$37,547
Cap, carrier, clutch, etc.—1,576—$39,947
Differential carrier—350—$106,400
Cover, bearing, fork—4,286—$74,816
Misc. parts—17,915—$26,362
Cage, hub, knuckle, front axle—4,562—$122,579
Gear set—1,300—$45,576
Washers—29,674—$32,448
Hubs, levers, washers—63,963—$53,318
Studs, rods, pins—23,649—$29,880
Shaft—7,200—$120,442
Extension, filter, etc.—9,151—$121,304
Gages—1,519—$398,870
Plates—3,746—$43,670
Bracket—1,518—$28,110
Universal jo'nt—3,800—$421,382
Shaft, spring, spacer, etc.—4,741—$65,914
Transmission assy. & shift fork—528—$94,093

**Kenyon Inst. Co., Long Island, N. Y.**
Restrictor assembly—2,435—$44,403

**Walter Kidde & Co., Belleville, N. J.**
Valves—$62,000
Cylinder assembly—$55,540
Gun bracket—$158,482

**Kenyon Instrument Co., Huntington, N. Y.**
Gear box—860—$29,850

**Kieley & Mueller, North Bergen, N. J.**
Valves & parts—2,710—$38,305

**Kerotest Mfg. Co., Pittsburgh, Pa.**
Squeeze grip valves—9,000—$29,200

**King-Seeley Corp., Ann Arbor, Mich.**
Engine governor kit—141,900—$96,816

**Knorr-Maynard, Inc., Detroit**
Slack adjuster—10,420—$37,836
Brake shoe—2,060
Governor assy.—1,076—$29,980
Hand brake assy.—3,086—$53,502
Connector—$55,433
Hose—4,044—$35,485
Gear, governor, etc.—15,100—$28,380
Engine governor—1,027—$25,204
Retainer cover—29,200—$81,303
Body & bushing assy.—3,082—$36,564
Bushing—63,250—$94,678
Cylinder head—1,766—$37,762
Governor, gear—5,235—$67,682
Governor, gear—15,100—$20,380
Compressors—895—$83,482

**Kollsman Inst. Div., Sq. D Co., Elmhurst, N. Y.**
Aneroid switch—295—$25,377
Tachometer indicator part—130—$25,507
Compasses—1,778—$79,237
Machmeters—$338,164
Parts for instruments—$63,283
Airspeed indicators—$59,559
Airspeed indicators—$52,364
Pressure altimeters—$72,335
Tachometer, indicators—$64,357
Indicator—$88,149
Tachometer indicator—$85,827
Airspeed indicator—$224,240
Rate of climb indicator—$165,165
Airspeed indicator—$147,119
Indicator—$59,433
Cabin pressure indicator—$92,259

**Korfund Co., Long Island City, N. Y.**
Parts for Diesel engine—2,335—$77,408

(*Turn to page 338, please*)

FIGHT WASTE

IN PEACE WASTE IS A SIN...
NOW:..WASTE IS A CRIME!

# DISSTON
## Announces a New
## WASTE PREVENTION PLAN
### for tool steel users

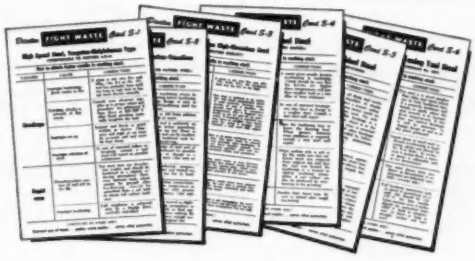
**Tool steels rank high on the list of critical materials for industrial expansion. Growing shortages are forcing many users to turn to unfamiliar types of steels for tool production.**

NOW DISSTON PRESENTS A PLAN TO STRETCH THE SUPPLY OF AVAILABLE TOOL STEELS—TO HELP YOU GET MORE OUT OF THE STEEL YOU ARE USING —THE DISSTON "FIGHT WASTE" PROGRAM!

## DISSTON GIVES YOU "FIGHT WASTE" MATERIAL FREE!

The basis for the program is the use of educational FIGHT WASTE Cards on six basic types of tool steels. These individual cards contain information on the selection, working, and application of tool steels to help you get better tool performance and longer tool life—to help cut waste of vital steels.

*These cards are supplied free—without cost or obligation—in quantities desired. Order by number:*



**No. S-1 HIGH SPEED STEEL, TUNGSTEN-MOLYBDENUM TYPE**
(Comparable to DISSTON 6-N-6)

**No. S-2 WATER-HARDENING CARBON OR CARBON-VANADIUM TOOL STEEL**
(Comparable to DISSTON Best Tool or Vatool Steel)

**No. S-3 AIR HARDENING, HIGH-CARBON HIGH-CHROMIUM STEEL**
(Comparable to DISSTON Croloy)

**No. S-4 OIL-HARDENING TOOL STEEL**
(Comparable to DISSTON Mansil)

**No. S-5 CHROME-TUNGSTEN CHISEL STEEL**
(Comparable to DISSTON Keystone)

**No. S-6 NICKEL-CHROME, OIL-HARDENING TOOL STEEL**
(Comparable to DISSTON Nicroman No. 827)

Disston also has FIGHT WASTE instruction cards covering a variety of wood and metal cutting *tools*. These cards provide specific information on the most efficient use and care of tools to reduce breakage, stop waste of material, and increase production. We will send you information on these cards.

**HENRY DISSTON & SONS, INC.** 331 TACONY, PHILADELPHIA 35, PA., U.S.A.

TOOL STEELS • BAND SAWS FOR WOOD & METAL • SOLID & INSERTED TOOTH CIRCULAR SAWS • MACHINE KNIVES • FILES & RASPS • HACK SAWS • CARBOLOY-FITTED SAWS & KNIVES • CUTTER HEADS • CHAIN SAWS

# Defense Contracts

(*Continued from page 336*)

**Kropp Forge Ord, Melvindale, Mich.**
Facilities for steel forgings—$2,038,445

—L—

**Laher Spring & Tire Corp., Oakland, Calif.**
Rear spring assy.—$61,074

**Lanagan & Hoke, Inc., Phila., Pa.**
Tester assy.—$83,530

**Lasher Spring & Tire Corp., Oakland, Calif.**
Rear spring assy.—$62,074

**Lavoie Laboratories, Morganville, N. J.**
Oscilloscope & parts—75—$195,525

**Lear, Inc., Grand Rapids, Mich.**
Actuator assembly—$30,178
Actuator assembly—$83,448
Drive assemblies—$35,655
Actuator, gear case—120—$46,388
Linear actuator—119—$62,460
Actuator—88—$30,133
Screwjack assembly—$67,010
Aircraft control systems—$173,455
Auto pilots—$5,783,756
Linear actuator—300—$83,547
Screwjack assy., etc.—$30,614
Actuators—150—$35,820

**Leece Neville Co., Cleveland**
Alternator & regulator—188—$213,976

**Lee Tire & Rubber Co., Conshohocken, Pa.**
Tire—1,300—$141,531
Tires—24,000—$1,006,152

**Leland Electric Co., Dayton, Ohio**
VA inverters—$115,140

**G. H. Leland, Inc., Dayton, Ohio**
Solenoid operated relay—108—$36,919

**Letterstone Sales Co., Chicago**
Bearing roller—4,500—$58,230

**Lewis Engineering Co., Naugatuck, Conn.**
Thermocouple leads—$25,655
Temperature indicators—$31,002
Temperature bulb—$82,000
Electric thermometer, tester—$55,041
Temperature indicators—$43,325
Temperature indicator—$45,570
Temperature indicator—$58,363
Temperature indicator—$104,650

**Libby-Owens-Ford Glass Co., Toledo, O.**
Windshield glass—7,550—$30,466
Glass windows—$159,528
Glass windshields—7,550—$30,466

**Liggett Spring & Axle Co., Monongahela, Pa.**
Spring assy.—50,000—$171,000
Front spring assy.—30,000—$131,400

**Lincoln Industries, Inc., Marion, Va.**
Radomes for aircraft—$43,073

**Link Aviation, Inc., Binghamton, N. Y.**
Indicator—125—$127,066
Assemblies, trainers—$2,000,000

**Link-Belt Co., Indianapolis, Ind.**
Roller bearing—14,000—$283,283
Roller bearing—14,000—$283,283

**Link-Belt Speeder Corp., Cedar Rapids, Iowa**
Crawler crane—4—$59,952

**Linn Coach & Trk. Div., Oneonta, N. Y.**
Trailer—$1,167,684

**Lipe-Rollway Corp., Syracuse, N. Y.**
Disk, clutch assy.—10,328—$271,831
Bearing w/case assy.—1,394—$35,520
Bracket, spring—51,320—$552,790
Engine plate—1,600—$44,000

**Liquidator Corp., Long Island City, N. Y.**
Fuel and oil indicators—$75,618
Liquidometer—300—$73,541

**Lite Mfg. Co., New York, N. Y.**
E-18 sustenance kit—$174,100

**Arthur D. Little, Inc., Cambridge, Mass.**
Gas turbine assemblies—$111,000

**Lockheed Aircraft Corp., Burbank, Cal.**
Spare parts for aircraft—$3,568,445
Parts for P2V aircraft—54—$24,458
Mid-span wing pylon kits—54—$100,000
Spare parts—$123,542
Retrofit kits—$1,000,000
Misc. spare parts—$250,000
Misc. spare parts—$3,850,202
Misc. spare parts—$1,000,000
Kits, misc. assys.—$100,000
Modernization of aircraft—$2,000,000
Services & materials—219—$65,000
Reconditioning of aircraft—$3,060,000
Parts, modification kits, etc.—$50,000
Aircraft—$5,000,000
Aircraft—$7,000,000
Aircraft—$2,000,000
Kit—$306,908
T-33A aircraft—5—$564,315
Aircraft & related spare parts—$45,979,085
Increase in training parts—$75,000
Parts for aircraft—$80,000
Increase of training parts, etc.—$75,000
Spare parts, etc.—$30,000

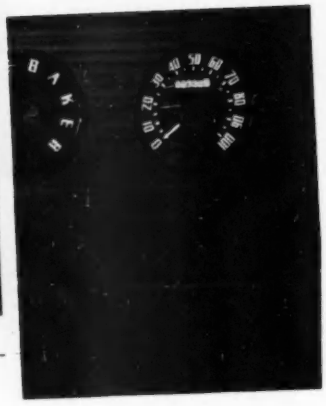
**Lockheed Aircraft Service, Burbank, Calif.**
Work on F-80 aircraft—$50,000
Overhaul R-60 aircraft—$95,000

**Lockheed Aircraft Service, Sayville, N. Y.**
Rehabilitate aircraft—100—$922,524

**Long Mfg. Div., Borg-Warner Corp., Detroit**
Disk clutch assy.—50,325—$1,027,636
Disk—20,000—$51,200
Disk—20,000—$51,200
Disk, engine clutch—5,723—$122,357

(*Turn to page 340, please*)



***MORE IMPORTANT*** *than ever...*

*Glare-Free*
*Black Lighted*

**FLUORESCENT DIALS**

Lawter's *high response* fluorescent paints have long been the standard for Black Lighted automotive instrument panels. Also available for aircraft and industrial dials, Lawter's fluorescent paints reduce eye strain and promote dark adaptation.



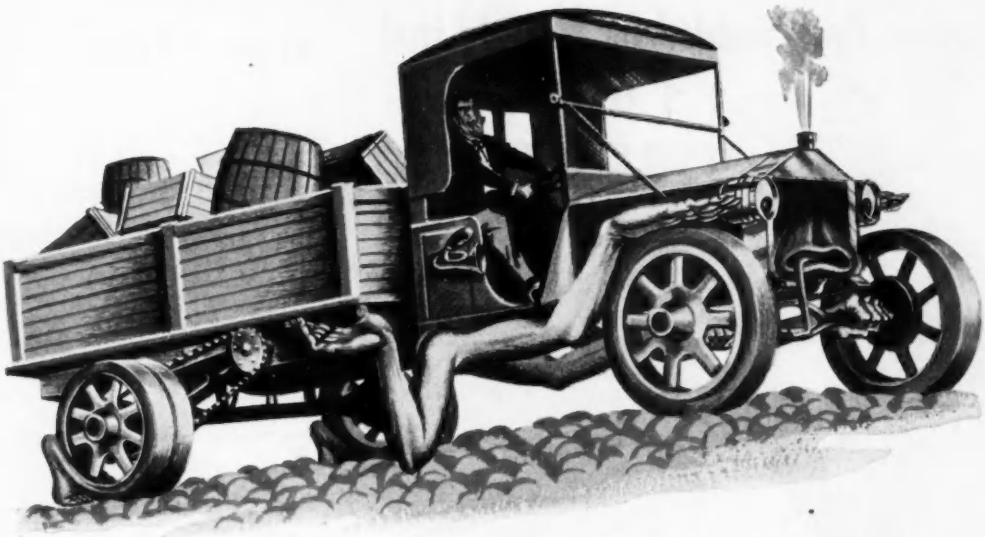
*Write for technical information, color cards, paint swatches and booklet "Fluorescence ... The New Dimension in Color." When writing, please include Government Specification Numbers, if available.*

Lawter specializes in every type of glowing paint . . . Daylight Fluorescent, Black Light Fluorescent and Phosphorescent "Glow-in-the-Dark." A completely equipped laboratory and skilled technicians can help your engineering and production departments adapt these glowing paints to defense orders.

All Lawter paints are absolutely harmless—they can be silk screened, sprayed or brushed. The phosphorescent material is also available in pressure sensitive tape.

**LAWTER CHEMICALS, INC.**
3555 TOUHY AVENUE CHICAGO 45, ILLINOIS

*Pioneer in Fluorescence*



# WAY BACK WHEN...

Remember when trucks used to huff and puff along under small-sized loads, carried on hard rubber tires . . . when drivers used to wrestle the wheel from the right hand side? Way back then engineers were trying to push the payload forward . . . to lick the problem of hard-steering this move entailed.

Today the problem is solved. Saginaw's new hydraulic power steering gear allows up to twice the usual front-axle payload . . . yet steers with automobile-ease under toughest conditions. And most important—Saginaw gives you this extra payload with no increase in truck size . . . no danger of exceeding legal load limits.

Yes, now you can get more payload—more profits—with Saginaw power steering . . . tested and proved by years of experience.

Find out how Saginaw Hydraulic Steering can boost the payload potential on your trucks . . . help you to *sell* more trucks. Write us for the complete details.

***IF IT'S EASY TO STEER—IT'S A SAGINAW GEAR***

**SSG PRODUCTS**

STEERING GEARS AND LINKAGES • PROPELLER SHAFTS • TRANSMISSION CONTROLS • TURN SIGNALS • DIESEL ENGINE PARTS • BALL BEARING SCREW AND NUT ASSEMBLIES • AUTOMOBILE JACKS

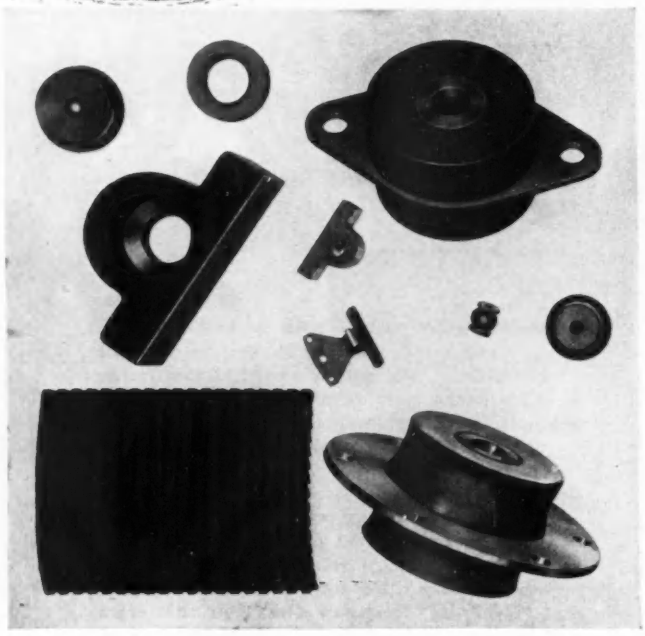
Saginaw

STEERING GEAR DIVISION

General Motors Corporation, Saginaw, Michigan

# Rubber Parts molded for Mounts that ISOLATE VIBRATION





ACUSHNET molds rubber parts, designed by customers' vibration engineers, for use in Mounts and Pads that isolate vibration or suppress noise and shock. We mold parts, to order only, for many leading manufacturers of mounts and pads, and for automotive, aviation, electrical and original equipment manufacturers.

ILLUSTRATED. Air-damped mounts for airborne equipment and military applications; Rubber-to-metal bonded motor mount required to withstand a 720° twist test; Isolation vibration pad for medium weight machinery; Featherweight mount for very light loads in delicate equipment; Disc type mount for mounting aircraft engines inside of hermetically sealed shipping containers; Spindle insulator for isolating vibration in textile spindles.

Acushnet
PROCESS COMPANY
New Bedford, Mass., U. S. A.

*Send for Rubber Handbook on your company letterhead*



*Address all communications to 754 Belleville Ave., New Bedford, Mass.*


## Defense Contracts

*(Continued from page 338)*

Platen, press—272—$178,982
Block—$25,055
Facing—75,000—$165,000
Block—$25,055
Yoke, plate, lever—54,162—$32,292
Disk, engine clutch, assy.—6,308—$54,292.

**Lord Mfg. Co., Erie, Pa.**
Engine mounts—$315,339
Parts for engine mounts—$44,974
Compound engine mount—$34,611

**Lundy Mfg. Corp., L. I. City, N. Y.**
Actuator, etc., for aircraft—100—$31,850

**Lycoming-Spencer Div., AVCO, Williamsport, Pa.**
Spare parts—$25,000
Engine parts—$1,885,974
Power plants—$9,680,619

**Lyon Metal Products, Aurora, Ill.**
Tool box & spare parts—10,695—$126,382

**Lyons Storage Battery Co., Hamburg, Pa.**
Storage batteries—2,000—$113,428

### —M—

**M. B. Mfg. Co., New Haven, Conn.**
Mount for aircraft—685—$38,017
Core assy.—18,590—$91,462
Engine mounts—$257,400

**Machine Tool & Die Co., Detroit**
Gear—14,000—$81,600
Cone—43,604—$305,228
Countershafts—9,857—$29,380
Clutch shaft—1,312—$29,532

**Mack Mfg. Co., Plainfield, N. J.**
Bell housing, etc.—1,480—$120,126
Repair kit—$243,000
Engine assy.—176—$491,568
Misc. parts—5,870—$26,109
Screws, gaskets, bushings—10,500—$26,941

**Mack Mfg. Co., Washington, D. C.**
Truck tractors—$26,965

**MacKenzie Muffler Co., Youngstown, O.**
Muffler assy.—8,540—$31,264

**Madison Muffler Corp., L. I. City, N. Y.**
Diesel engine parts—$227,931

**W. J. Magrane Co., Cleveland**
Insulation—12,940—$26,068
Plate, shaft, etc.—13,175—$59,151

**Manhattan Lighting Eqt., New York**
Shock absorbers—$72,068

**Manning, Maxwell, & Moore, Inc., Bridgeport, Conn.**
Valves—4,509—$62,504
Valve assy.—390—$30,243

**Mansfield Tire & Rubber Co., Mansfield, Ohio**
Tires—12,200—$95,754
Tires—12,300—$734,459
Tires—500—$35,290
Tires—1,000—$69,940
Tires—4,500—$210,555
Tires & tubes—189,550—$3,749,410
Tire—4,000—$235,000

**Marathon Fdry. & Mch., Wausau, Wis.**
Pumps—2,100—$30,805

**Maremont Auto Products, Chicago**
Muffler assy.—$110,880

**Marlin Rockwell Corp., Jamestown, N. Y.**
Ball bearings—$14,567
Ball bearings—$ 0,863
Ball bearings—$91,865
Ball bearings—$43,0 0
Roller bearings—$272,300
Ball bearings—$66,444
Bearings, rod end—$84,100
Ball bearings—$165,880
Ball bearings—$66,444
Ball bearings—$175,978
Anti-friction bearing—21,270—$68,720

*(Turn to page 342, please)*

You owe it to yourself to learn more about this remarkable hammer . . .

*Write for Bulletin 11-L-O*




# CECO-DROP

## • *The Boardless Gravity Drop Hammer* •

**No Boards • No Front Rod • No Back Rod**
**Costs less to operate . . . Forges more minutes per hour . . . Is safer and easier to operate . . . This hammer is setting new records in cutting forging costs and in increasing production.**

**CHAMBERSBURG ENGINEERING CO., CHAMBERSBURG, PA.**

## Defense Contracts

(*Continued from page 340*)

**Marlow Pumps, Ridgewood, N. J.**
Pumping kits for trailers—$468,173

**Glenn L. Martin Co., Baltimore, Md.**
Aircraft parts—$95,000
Accumulator—29—$7,129
Strut outer wing—325—$32,888
Armament parts—2,342—$90,835
Aircraft deck turrets—180—$4,914,000
Kits of parts for incorporating a hydraulic spring assist in aircraft—72—$176,256

**Massey-Harris Co., Racine, Wis.**
Howitzer motor carriage—$55,000,000

**Maxim Silencer Co., Hartford, Conn.**
Repair kit, universal joint—34,600
Muffler, right and left—124—$44,228

**Maxson Engineering Div., New York**
Amplifier—$135,780
Servo unit for aviation armament—190—$799,539
Type B-10 amplifiers—$50,265

**Mayes Tool Co., Detroit**
Engine gear—5,025—$52,511

**McCreary Tire & Rubber, Indiana, Pa.**
Tires—5,700—$246,126

**McDonnell Aircraft Corp., St. Louis, Mo.**
Modification of XE-88 airplanes—$247,340

**McKay Co., Pittsburgh, Pa.**
Chains—2,330—$33,738

**McQuay-Norris, St. Louis, Mo.**
Bearing set—45,000—$75,475
Piston kit—155,140—$569,948

**Mechanical Products, Los Angeles**
Circuit breakers—$193,725

**Mechanics Universal Joint Div., Borg Warner Corp., Rockford, Ill.**
Universal joints, propeller shafts, yokes—87,900—$98,682

**Merit Truck Parts & Wheel Co., Chicago**
Gear set—800—$28,330
Pinion, axle—600
Pinions—50,158—$60,348

**Metal Hose & Tubing Co., Dover, N. J.**
Gasoline hose—$223,717

**Metro Engineering & Mfg., Detroit**
Cab closures—250—$125,700
Cab closures—510—$212,287
Kit assy.—$433,000

**Meyer's Tire & Supply Co., Akron**
Tire spreader—150—$45,895

**Michigan Prod. Co., Michigan City, Ind.**
Tank—3,700—$65,644

**Miller Trailer, Inc., Bradenton, Fla.**
26 ft. stake trailer—104—$197,091

**Milwaukee Gear Co., Milwaukee, Wis.**
Gear—2,046—$32,531

**Minneapolis-Honeywell Reg. Co., Minneapolis**
Automatic pilot components—$33,882
Rack and units—66—$43,874
Turbosupercharger regulators—$621,689
Gyro controls—$245,350
Spare parts—$517,243
Gyro directional stabilizers—$25,712
Automatic pilot comp.—$2,000,000
Overhaul direct. panels—$28,485
Beam guidance control—$59,062
Beam guidance control—$59,062
Misc. spare parts, etc.—$60,000
Automatic pilot components—$391,958

**Mohawk Rubber Co., Akron**
Tires—6,600—$486,120
Tires—41,562—$4,161,564
Patch, tire—535,000—$1,162,040
Tires—6,000—$503,040
Tires—9,600—$171,717
Tire repair materials—265,200 lb—$168,408
Camelback—222,500 lb—$105,820
Camelback—222,500 lb—$105,820

**Monarch Mfr. Equip. Co., Detroit**
Winch rear—$26,149
Flange—$55,244

**Monroe Auto Equipment, Monroe, Mich.**
Shock absorber assy.—1,214—$26,331
Shock absorber—5,088—$247,176
Shock absorber—2,600—$32,422
Shell parts, he—550,000—$81,700

**C. N. Monroe Mfg. Co., Flint**
Bracket—$26,687

**E. Morton & Son, Windsor Locks, Conn.**
Piston position indicator—$52,575

**Motive Parts Co. of America, Chicago**
Manifolds, nozzles—11,537—$154,822

**Motor Wheel Corp., Lansing, Mich.**
Hub wheel w/drum assy.—49,000—$223,685
Wheel w/ring—3,000—$75,000

**Mott Haven Truck Parts, Inc., Bronx**
Hose—2,015—$33,968
Bracket—215
Front axle—150—$145,200
Harness, wiring—6,200—$25,678

**Mutual Tool & Mch. Co., Detroit**
Anchors—3,622—$40,630
Studs—29,000—$51,910

**Mutual Trk. Parts Co., Chicago**
Engine cyl. head—1,706—$30,281

## —N—

**Nandot Engr. Co., Detroit**
Handle, door latch—16,800—$30,150

**Nasco, Inc., Cleveland, Ohio**
Rework of starters—$32,327
Aircraft starter—364—$60,060

**National Bronze & Alum. Co., Detroit**
Bushings—140,000—$42,310

**National Supply Co., Springfield, Ohio**
Parts for Diesel engines—2,675—$29,585
(*Turn to page 344, please*)

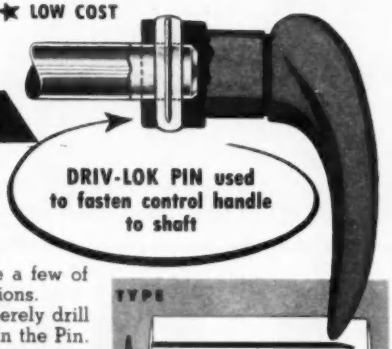

# use DRIV-LOK PINS for

## FASTER ASSEMBLY
## LOWER PRODUCTION COSTS

★ VERSATILE . . . Types for Most Applications
★ WIDE SELECTION of Materials
★ SIMPLE INSTALLATION
★ VIBRATION and SHOCK WON'T LOOSEN THEM
★ LOW COST



**TYPICAL AUTOMOTIVE APPLICATION**

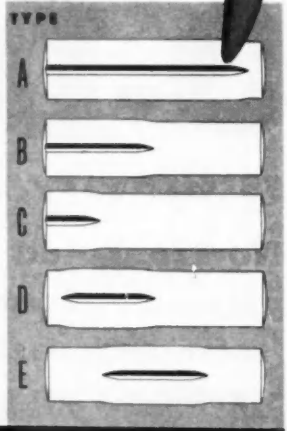



DRIV-LOK Pins are widely used in the automotive industry. Locking gears to shafts, hinge and pivot pins, locating pins, assembly of body hardware—are a few of the many industry applications.

Installation is simple—merely drill a hole and drive or press in the Pin. Flutes on each side of the grooves press outward against hole wall to keep the DRIV-LOK Pin securely anchored—immune to vibration and shock.

DRIV-LOK Pins are available in carbon steel, alloy, stainless and brass or bronze in diameters from 3/64" to 1/2", and can be heat treated or plated to your specifications.

Write for samples and descriptive literature. Also ask for circular describing LOK DOWELS—a new development for maintaining precision alignment of machine components.







**DRIV-LOK PIN COMPANY**
CHAUNCEY STREET • SYCAMORE, ILLINOIS

# NEW C-D Silicone Dilecto withstands an inferno of heat and electricity



## to improve product performance for you!

There are three new grades of C-D Dilecto* that can withstand temperatures as high as 250°C. They are chemically inert, silicone-glass laminated plastics that offer exceptionally high heat resistance and good arc resistance, extra strength, and positive moisture resistance! At Continental-Diamond we've literally lived and worked with Silicone Dilecto—perfecting it to a point where we believe it can be highly useful in helping to solve your production problems — and improve product performance.

And this remarkable plastic is but one of many in the C-D family. They provide practical combinations of mechanical, electrical, and chemical properties—structural strength, light weight, positive moisture, heat and corrosion resistance. In hundreds of plants, C-D Plastics—Fibre, Vulcoid, Dilecto, Celoron, and Micabond—offer proof that it pays to see C-D first in your search for the right plastic for the job. For interesting, useful information on Silicone Dilecto, and other C-D high strength plastics, call or write your nearest C-D office, soon.



your partner in producing better products

*Dilecto GB—112—S
Dilecto GB—128—S
Dilecto GB—261—S

DE-2-49

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WEST COAST REPRESENTATIVE: MARWOOD LTD., SAN FRANCISCO 3 • IN CANADA: DIAMOND STATE FIBRE CO. OF CANADA, LTD., TORONTO 8

**Continental Diamond FIBRE COMPANY**

*Established 1895 . . Manufacturers of Laminated Plastics since 1911—NEWARK 2 • DELAWARE*

# TODAY, More Than Ever, GOOD Filters Are Vital!



## FOR ALL ESSENTIAL EQUIPMENT



Cut-away view shows location of filter element in filter housing.

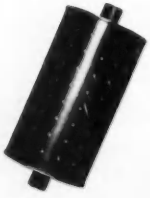
• Prolonging engine life, saving time in unnecessary labor on engine overhauls and premature parts replacements, plus the actual savings in use and cost of oil, all can be assured with *good* oil filters.

All types of engine-powered vehicles require *good* oil filter protection—delivery cars and trucks, buses, military equipment, agricultural and construction machinery, tractors.

Performance records over the years have proved the efficiency and economy of MICHIANA Oil Filters. Such records and engineering tests have led to their widespread selection and recommendation by the most experienced operating men and engineering staffs of leading engine builders.

MICHIANA Filters are made in a range of capacities to meet all engine requirements.

**MICHIANA PRODUCTS CORPORATION**
Michigan City, Indiana



To insure maximum efficiency and protection, always use Michiana Replaceable Elements.

**MICHIANA OIL FILTERS**


## Defense Contracts

*(Continued from page 342)*

**National Wholesalers, Los Angeles**
Hood assy.—5,660—$25,737
Fuel tank—170,000—$146,625
Regulator & kits—30,208—$505,201

**Neff Equipment Co., Toledo, Ohio**
Ammeters—30,795—$104,130

**Neilson Muffler Corp., Stoughton, Wis.**
Muffler—7,997—$479,867

**Nelsonville Fdry. & Mch., Nelsonville, O.**
Wheels—23,133—$2,338,746

**New Departure Div., GMC, Bristol, Conn.**
Ball bearings—$47,992
Ball bearings—$67,835
Bearings—$470,362
Ball bearings—$78,066

**New Idea, Div., AVCO, Coldwater, O.**
Trailer and storage rack—$99,852

**New Process Gear Corp., Syracuse, N.Y.**
Retainer, trans. shaft—10,474—$60,225
Gear, shaft—8,000—$72,080
Gear—25,000—$164,500
Transmission assy.—8,416—$767,960
Transfer case—8,000—$114,000
Covers, pins, etc.—90,125—$1,045,152
Link, shaft, fork—12,000—$59,570
Bushing, lever, etc.—12,602—$206,149
Drums—7,000—$36,900

**New York Air Brake Co., New York**
Hydraulic pumps—$99,000
Hydraulic pumps—337—$99,415
Parts for pumps—31—$33,261
Hydraulic pumps—$260,400
Hydraulic pumps—$181,600
Block assy.—2,825—$224,787
Pump—109—$34,335

**New York Rubber Corp., New York**
Kit for aircraft—7,240—$494,080

**Niles-Bement-Pond Co., W. Hartford, Conn.**
Air diaphragm assy.—1,000—$99,975

**Noland Co., Inc., Washington, D. C.**
Flush type valve—5,800—$32,539

**Norma-Hoffman Bearing Corp., Stamford, Conn.**
Ball bearings—$26,250
Ball bearings—$25,568
Roller bearings—$165,450

**North American Aviation, Los Angeles**
Assemblies, sub-assemblies—$995,000
Assemblies—$286,152
Assemblies—$3,503,838
Assys. for aircraft—$52,100
Maintenance part—2,600—$67,718
Aircraft assemblies & sub-assemblies—$82,195
Aircraft assemblies & sub-assemblies—$30,954
Airplane modification kits—$100,000
Kits for service—$56,826
Misc. assemblies—$9,000,000
Spare parts for aircraft—$4,271,273
Wing tanks—$1,000,000
Misc. assemblies & sub-assemblies—$10,-180,746
Misc. assemblies & sub-assemblies—$38,-150
Misc. assemblies & sub-assemblies—$258,-468
Spare parts—$105,000
Spare parts—$500,000
Misc. assys. and spare parts—$510,000
Engineering changes, etc.—$500,000
Spare parts, kits, etc.—$30,000
Modification kits—$200,817
Antenna for aircraft—$90,000
Animated panel mock-up trainers—$644,-185
Modification of aircraft—$226,590
Model airplanes—$7,700,000

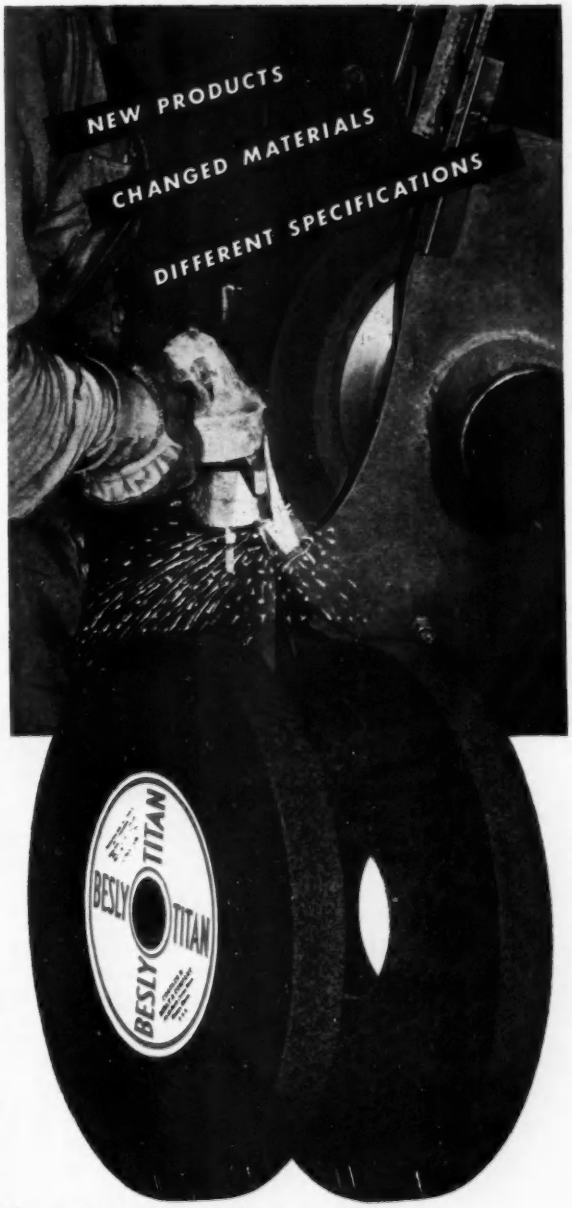
**Northfield Stamping, Melvindale, Mich.**
Manifold—800—$70,400
Oil pan baffle—3,700—$48,050

**Northrop Aircraft, Hawthorne, Calif.**
Misc. assemblies—$50,000

*(Turn to page 346, please)*

# "Job-Fitted" ABRASIVES

## are BESLY's answer to today's production conditions




*More Grinds Per Wheel*
*Deliveries In Just a Few Days*
*Full Usage of Abrasive*
*Fast, Cool Cutting*
*Less Frequent Dressing*
*Fewer Wheel Changes*
*Longer Wheel Life*

Changing production schedules mean new products, substitute materials and altered specifications. Each can be handled correctly by abrasive modifications. Besly representatives know products, materials and processes—especially how to maintain high uniformity in production grinding—with every piece the same. Write us to have a Besly-Titan field engineer discuss your grinding needs . . . and ask for a catalog.

### IT COSTS NO MORE . . .

In meeting today's high production demands, it's vitally important to work with abrasive discs and wheels best suited to *your specific needs*. Besly is able to supply you with compounded-to-specification abrasives that will do many jobs better . . . and you can count on deliveries in a matter of *days*—not weeks as might be expected. It pays to have your job specifications filed with Besly for same-week delivery of *made-to-order* wheels and discs.

**BESLY-TITAN** *Custom-Made Abrasive Wheels and Discs*

**BESLY**

TAPS—the world's most accurate tap.

TWIST DRILLS AND REAMERS—Complete line for every need.

BESLY-TITAN ABRASIVE WHEELS AND DISCS—individually formulated for your job

GRINDERS that reduce costs on every type of surface grinding.

**CHARLES H. BESLY & COMPANY** • 118 N. Clinton Street • Chicago 6, Illinois • Factory: Beloit, Wisconsin




When you specify LORD Mountings you are purchasing protection. They protect passengers from noise and vibration . . . make their journeys more pleasant, more comfortable . . . induce them to travel by bus again.

LORD Mountings also protect bus and equipment from road shock and vibration—resulting in smoother and more dependable operation, at lower maintenance cost. Here are some of the places where LORD Mountings will serve you profitably.

- Engine Mounts
- Radiator Mounts
- Instrument Mounts
- Air Conditioning Unit Mounts
- Ventilating Fan Mounts

LORD MANUFACTURING COMPANY • ERIE, PA.
Canadian Representative: Railway & Power Engineering Corp. Ltd.

LORD BONDED RUBBER — Vibration-Control Mountings . . . Bonded-Rubber Parts


# Defense Contracts

(Continued from page 344)

**Northwestern Auto Parts Co., Minneapolis**
Repair kit—10,907—$31,172
Yoke—15,000—$69,070
Fork, shoe—27,100—$75,664

—O—

**Oakland Truck Sales, River Rouge, Mich.**
Frt. axle assy.—100—$90,000
Engine w/access.—60—$135,000
Shafts—1,750—$120,925

**Ohio Rubber Co., Willoughby, Ohio**
Track assemblies—43—$35,685
Strip-8 shoe, shoe assy.—57,912—$8,378,265

**Oilgear Co., Milwaukee, Wis.**
Control—1,000—$45,500
Mtr. assy. w/adapter—200—$37,650
Adapter cover—3,200—$56,289
Pump handle bracket—3,600—$306,710
Pump handle bracket—3,600—$306,710
Parts—811—$138,692
Shaft—800—$29,200

**C. A. Olsen Mfg. Co., Elyria, Ohio**
Fork w/swivel—7,300—$44,968

**Olympic Ind. Ltd., Los Angeles**
Cushions—35,000—$146,850

**Optimus Equipment Co., Matawan, N. J.**
Vapor type degreaser—$39,538

**Orange Roller Bearing Co., Orange, N. J.**
Bearings—28,250—$49,486

**Oro Mfg. Co., Adrian, Mich.**
Clamp assy. for aircraft—20,000—$35,056

**Orton Crane & Shovel Co., Chicago**
Crane shovel—7—$294,700

**Oster Mfg. Co., Cleveland**
Screw machine—12—$67,800

**Owens Corning Fiberglas Corp., Toledo**
Glass fibers—205,000 lb—$346,450

—P—

**Pacific Airmotive Corp., Burbank, Cal.**
Overhaul of engines—$1,256,307
Rehabilitation, provision for aircraft—$2,500,000
Overhaul of engines—$225,500

**Pacific Car & Foundry Co., Renton, Wis.**
Gun motor carriage

**Pacific Piston Ring Co., Los Angeles**
Aircraft hardware—$52,030

**Pacific Rubber Co., Oakland, Calif.**
Tires—61,440—$1,888,921
Camelback—400,000 lb—$92,800
Camelback—400,000 lb—$92,800

**Pacific Automotive Corp., Burbank, Cal.**
Aircraft—$3,060,000

**Packard Motor Car Co., Detroit**
Diesel engine—20—$4,000,000
Diesel engine generator set—20 sets
Design, develop engines—$20,000
Diesel engines—34—$3,500,000

**Parker Appliance Co., Cleveland**
Aircraft hardware—$35,245
Bushing—380—$29,838

**Parker Appliance Co., Los Angeles**
Aircraft hardware—$43,989

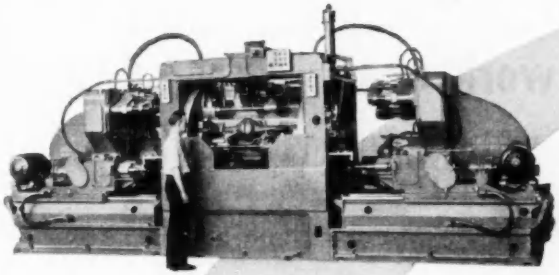
**Vic Pastushin Industries, Los Angeles**
Tank assys.—$1,394,250

**Pefex Corp., Milwaukee, Wisc.**
Radiator parts—7,727—$1,042,705

**Pen Fabricators, Norristown, Pa.**
Hardware, misc., pins—791,000—$41,126

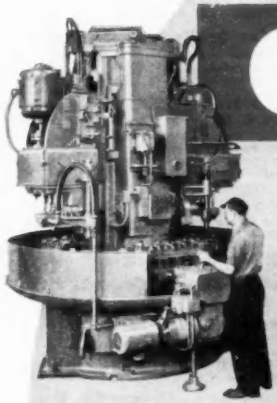
**Pennsylvania Rubber Co., Mansfield, O.**
Tires—1,100—$40,766
Tires—700—$62,531

(Turn to page 348, please)

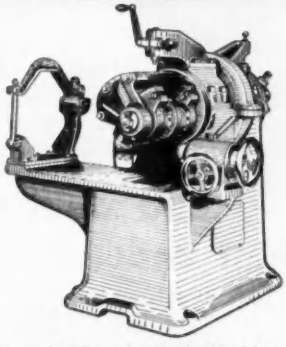


# BUILDERS OF SPECIAL MACHINERY SINCE 1918

# GREENLEE







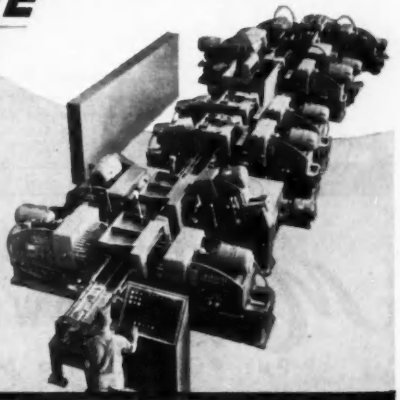
'Way back in 1918, the first Greenlee Special Machine went into operation in the tractor plant of a now famous automobile manufacturer (who still makes tractors). We've made a lot of machines since then, from small, special purpose machines performing only a few operations to huge transfer machines employing several hundred tools working in automatic, unvarying cycles. We're still making special machines . . . and constantly developing new methods for faster, cheaper production processes.

PRODUCTION MACHINERY

GREENLEE

**GREENLEE BROS. & CO.,**
**1753 MASON AVE., ROCKFORD, ILL.**





MULTIPLE-SPINDLE DRILLING, BORING, TAPPING MACHINES • AUTOMATIC SCREW MACHINES • AUTOMATIC TRANSFER PROCESSING MACHINES

# Mallflex gets more work done with more power in your hand ...less weight to carry

**new air-cushioned grinding wheel gives finer finish faster**



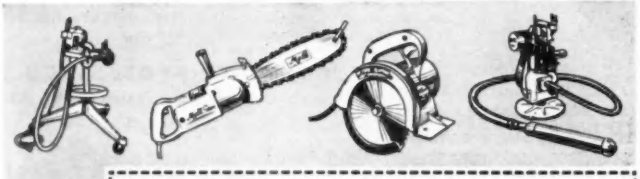
Fits all flexible shaft tools, bench grinders and drills. Should be in every tool crib. $15—with drum, 5 abrasive bands, hand pump.



## and we'll prove it in your plant under your own conditions

This Mallflex Flexible Shaft Grinder gives your operator the power of a ¾ hp. portable tool in his hands, *but with motor weight suspended or on the floor.* You cut production costs . . . increase output! Sanding, grinding, wire brushing, polishing, buffing and drilling attachments available. Motor capacities up to 3 hp.—can deliver 100% additional power on momentary overloads.

**38 Factory Service Branches in U. S. and Canada with complete parts stocks serve thousands of dealers and millions of users.**





**Mall Tool Company**
7718C S. Chicago Ave., Chicago 19, Illinois

☐ Please send me your free booklet "FLEXIBLE SHAFT GRINDERS"
☐ I would like a free demonstration in my own plant.

Name_____

Company_____ Dept._____

Address_____

City_____ State_____

Kind of Tool_____

**Mall® POWER TOOLS**

**Put POWER into MANPOWER**

*Manufacturers of over 1000 Tools for a Million Jobs*


## Defense Contracts

(*Continued from page 346*)

**Pentagon Mfg. Co., Detroit**
Cab closures—510—$208,335

**Perfection Stove Co., Cleveland**
Winterization kit—72—$66,290
Power plant kit for truck—2,583—$881,570
Kit—425—$119,325
Power plant heater—110—$91,443
Kits—300—$210,773

**Perma Prod. Co., Cleveland**
Seats & cushions—9,940—$44,105
Cushions—20,000—$58,500

**Perrine Quality Prod. Corp., Waltham, Mass.**
Batteries—6,400—$82,919
Batteries—44,000—$812,120

**Pesco Products Div., B-W Corp., Bedford, O.**
Pump assembly—$66,413
Fuel booster—$30,958
Fuel pump parts—$60,802
Maintenance parts—$96,872
Motor—243—$21,965
Pump assembly—$33,900
Relief valve for fuel pump—1845—$45,008
Gear drive used on pump for aircraft—1335—$75,973
Fuel booster pumps—$229,142
Fuel booster pump—$92,663

**Piqua Engineering Co., Inc., Piqua, O.**
Aircraft parts—$54,702

**Phaostron Co., S. Pasadena, Calif.**
Generator relays—$79,716

**Piasecki Helicopter Corp., Morton, Pa.**
Modification kits, etc., for aircraft—$95,000

**Pioneer Air Compressor Co., New York**
Compressors—$152,468

**Piper Aircraft Corp., Lock Haven, Pa.**
USAF model L-18 airplane—$222,362

**Pittsburgh Plate Glass Co., Pittsburgh**
Glass windows—$108,342
Safety glass—80,600—$260,280

**Polcon Rubber Co., Garrettsville, Ohio**
Tubes—48,345—$157,586

**Joseph Pollak Corp., Dorchester, Mass.**
Switch—50,000—$26,500

**Porter-Cable Machine Co., Syracuse, N. Y.**
Portable electric saws—$28,009

**Pratt & Letchworth Co., Buffalo, N. Y.**
Castings—111—$76,320
Pattern—1 lot
Cast vent. louvre—$321,572

**Pratt & Whitney Aircraft Div., E. Hartford, Conn.**
Turbo-jet development—$3,300,000
Turbo-jet engines—$4,650,000

**Pratt & Whitney Corp., E. Hartford**
Conduct fuel components leakage test—$52,250

**Pratt & Whitney Div., Niles-Bement-Pond Co., W. Hartford, Conn.**
Precision jig boring machine—1—$25,695

**Precision Aviation Prod., Buffalo, N. Y.**
Adapter assembly—$36,000

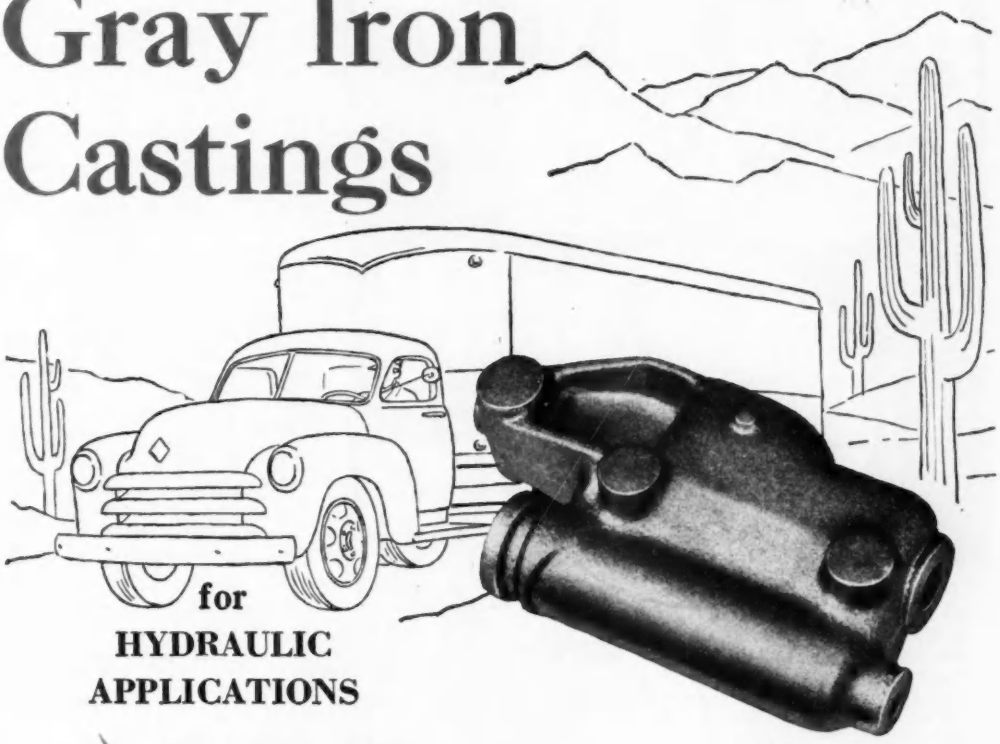
**Premier Inc., Corp., Monroe, Mich.**
Shoe—29,456—$433,707
Shoe w/lining—2,940—$60,803

**Proof Mach. & Brass Fdry. Co., Cleveland**
Stud—169,500—$32,589
Insulators, nuts, screws—84,000—$59,240
Line—41,935—$31,155
Stud, gasket—84,900—$56,996
Bushing, etc—22,875—$51,468
Shaft, rope assy.—3,800—$52,820
Lines—41,935—$31,155

**Puritan Co., Inc., Rochester, N. Y.**
Hydraulic brake fluid—70,000 gal.—$145,390
Hydraulic brake fluid—25,000 gal.—$51,975

(*Turn to page 350, please*)

# Eaton Permanent Mold Gray Iron Castings



**for HYDRAULIC APPLICATIONS**

- **Free machinability**
- **Dense, homogeneous structure**
- **Freedom from leakage under pressure**
- **Machines to high, mirror-like finish**
- **Properly annealed; no growth or distortion after machining**

Send for your copy of the illustrated booklet, "A Quick Picture of the Eaton Permanent Mold Process for Producing Gray Iron Castings."

## EATON MANUFACTURING COMPANY

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FOUNDRY DIVISION: 9771 FRENCH ROAD • DETROIT 13, MICHIGAN

**PRODUCTS:** Sodium Cooled, Poppet, and Free Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Rotor Pumps • Motor Truck Axles • Permanent Mold Gray Iron Castings • Heater-Defroster Units • Snap Rings Springtites • Spring Washers • Cold Drawn Steel • Stampings • Leaf and Coil Springs • Dynamatic Drives, Brakes, Dynamometers

# Rasslin' with HIGH COSTS?

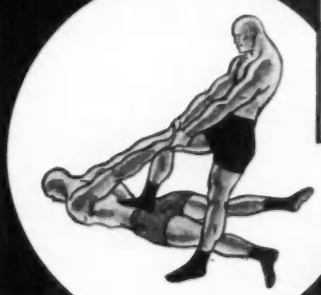
## SAVE on "MUSCLE JOBS"

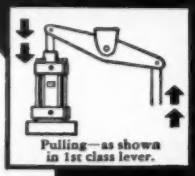
with **T-J CYLINDERS**



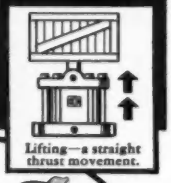


Toggle—a typical pushing operation.





Pulling—as shown in 1st class lever.



Lifting—a straight thrust movement.



Air or hydraulic power—applied by T-J Cylinders—gets an amazing lot of tough jobs done for industry . . . *faster, more efficiently,* and *at lower cost!* Check your plant operations and machines *now*—make a note of mechanical movements that can be simplified and speeded up with T-J Cylinders! Designed for a wide range of pushing, pulling, lifting, clamping or control jobs . . . 100 lb. or 50,000 lb. Many standard sizes and styles . . . both cushioned and non-cushioned types . . . precision-built, dependable. Write for additional information. The Tomkins-Johnson Co., Jackson, Mich.

**35 YEARS EXPERIENCE** (T-J)

**TOMKINS-JOHNSON**

RIVETORS AIR AND HYDRAULIC CYLINDERS CUTTERS CLINCHORS


## Defense Contracts

(*Continued from page 348*)

**Purolator Products, Inc., Rahway, N. J.**
Fuel element assembly—$32,000
Trans. oil filter element—9,500—$32,172
Filters—$169,400
Drivers, elements—4,550—$38,269
Element and gasket—$51,750

### —R—

**Radio City Products Co., New York**
Voltmeter—400—$99,190

**Radioplane Co., Van Nuys, Calif.**
Target aircraft—$3,632,370

**Ranger Aircraft Engines Div., Farmingdale, N. Y.**
Assemblies, spares—$25,000
Electric power plant—$1,227,000

**Reading Batteries, Inc., Reading, Pa.**
Batteries—$2,509,040

**Reaflex Co., Brooklyn, N. Y.**
Straps & connections—419,000—$26,968

**Regent Mfg. Co., Downey, Calif.**
Aviation wing jack—113—$156,511

**Regents of the University of Mich., Ann Arbor**
Fuel spray nozzles for jet engines—$40,000

**Reliance Mfg. Co., Chicago**
Canopy assy.—$683,764

**Reo Motors, Inc., Lansing, Mich.**
Trucks (various)—$110,000,000

**Republic Aviation Corp., Farmingdale, N. Y.**
Assys. and subassys—$358,732
F-84E airplanes—$7,500,000
F-84E-5 RE model airplanes, spare parts—$47,674,526
F-84F airplanes, spare parts—$34,900,000
RF-84F—airplanes—$3,200,000
Animated panel trainers—$171,503
Assemblies and spare parts—$94,730
Assemblies and spare parts—$240,052
Assemblies and spare parts—$4,000,000
Horizontal stabilizers—$208,340

**Revere Corp. of America, Wallingford, Conn.**
Fuel flow transmitters—$192,800

**Reynolds Metals Co., Louisville, Ky.**
Alum. alloy—89,000 lb.—$66,031
Alum. alloy sheets—253,000 lb.—$93,540

**Rheem Mfg. Co., Washington, D. C.**
Shipping containers, aircraft engines—$1,054,755

**Rhodes Lewis Co., Culver City, Calif.**
Charger—$2,473,894

**Robertshaw Fulton Controls, Youngwood, Pa.**
Parts for actuators—$29,597

**Robbins Tire & Rubber, Tuscumbia, Ala.**
Tubes—162,013—$641,107

**Rockwell Engr. Co., Blue Island, Ill.**
Support bracket w/assy.—3,000—$36,000

**Rollway Bearing Co., Inc., Syracuse**
Roller bearings—91,040—$31,489

**Romec Div., Lear Inc., Elyria, Ohio**
Air compressors—$42,954

**Ross Gear & Tool Co., Lafayette, Ind.**
Hydraulic gear—75—$56,966

**Ross Heater & Mfg. Co., Buffalo, N. Y.**
Diesel engine coolers with repair kits—$75,024

**Ross Motor Pts. Co., S. Boston, Mas.**
Repair kit, etc.—90,772—$64,770

**Royal Electric, Inc., Jamestown, Ohio**
Accelerometers—15—$59,352

**Rust-Oleum, Evanston, Ill.**
Damp-proof primer—8,000 gal.—$27,680
Damp-proof primer—2,500 gal.—$6,800

(*Turn to page 352, please*)

# Hanson-Whitney
## STANDARD
## TAPS and GAGES
## NOW STOCKED

## *by* INDUSTRIAL DISTRIBUTORS

To better serve our customers in their own territories, Hanson-Whitney Taps will now be merchandised thru a national set-up of Industrial Distributors. Standard sizes and types will be stocked in important tapping centers for fast delivery to more users, over a greater area.

During 1951 we shall back up our Distributors with H-W advertising in 8 publications reaching 1,587,600 readers. We have a new, sturdy, attractive, clearly marked package. Dealer helps will be supplied from time to time . . . and every effort will be made to insure better tapping results at lower costs . . . with recommendations from H-W engineers on request.

Gages may not be completely stocked in the field, but all standard sizes are available for immediate delivery.







### NEW TAP PACKAGE

Colorful blue, black and white packages are easily identified on the shelves. Size and type figures are clearly marked. Taps are separated in the metal-edged box and further protected with an outside shipping carton.

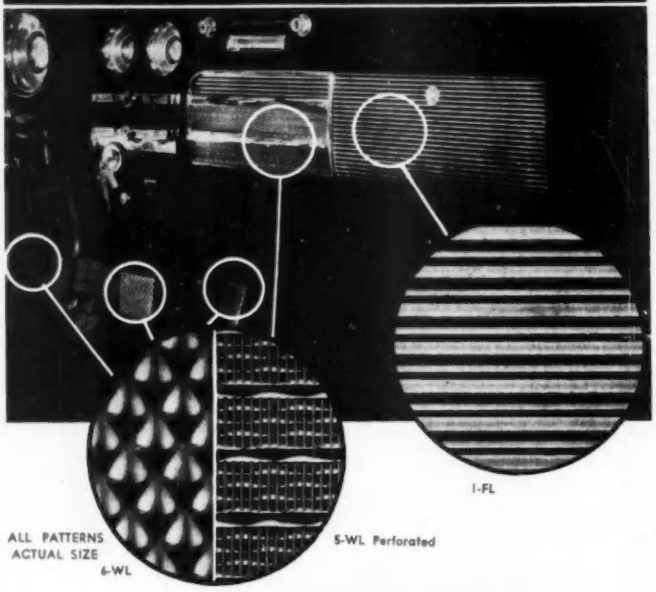
**HANSON-WHITNEY COMPANY** • HARTFORD 2, CONN.
DIVISION OF THE WHITNEY CHAIN COMPANY

**SOME TERRITORIES NOW OPEN FOR QUALIFIED DISTRIBUTORS**

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PIONEERS OF FINISHED TAPS

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As you can see, Rigidized Metal can be used to great advantage where a decorative effect is required. Its beauty will appeal to your prospective customers. Rigidized Metals will also eliminate reflection of sunlight, a safety and comfort factor, resist marring and will not show scratches or finger marks.

On the practical side, you can use a lighter gauge metal due to the increased strength-weight ratio, thus giving you *more* units per pound of metal. It will pay you to investigate at this time the advantages and new selling points for your products made possible by the use of Stainless Rigidized Metals.



Send for your copy of the *Rigidized Metals IDEA Handbook* TODAY



**Rigidized Metals Corporation**

671 OHIO STREET BUFFALO 3, N.Y.


## Defense Contracts

(*Continued from page 350*)

**Ryan Aeronautical Co., San Diego, Cal.**
Assemblies—$165,000
Assemblies—$110,000
Assemblies—$64,000
Jet engine parts—$110,000
Misc. assys., sub-assys.—$70,000

**Ryan Industries, Detroit**
Type A-6 chaff dispenser—$356,027

—S—

**SKF Industries, Inc., Phila., Pa.**
Roller bearings—$101,000
Roller bearings—8—$8,181
Bearings—1,320—$26,624

**Saginaw Products Co., Saginaw, Mich.**
Gear, bushing—20,050—$29,396
Plate, bracket, etc.—6,750—$30,436
Wheel—4,500—$56,700

**St. Pierce Chain Corp., Worcester**
Vehicle gears—69,610—$1,132,134

**Murray W. Sales & Co., Detroit**
Elbows—282,900—$32,986

**Sargent Eng'r. Corp., Hunting Pk., Cal.**
Aircraft cylinders—$39,110

**Saval, Inc., Los Angeles, Calif.**
Valves—$139,173

**Sav-Way Sara Seal, Detroit**
Bushings—58,815—$127,628

**Frank G. Schennit Rubber Co., Baltimore**
Airplane casings & tubes—$115,227
Aircraft casings—$139,617

**Schwien Engineering Co., Los Angeles**
Vertical gyro indicators—$117,900
Modification of gyro assys.—$37,410
Indicators—$30,452
Turn and bank indicator—$137,940
Modification of gyro assys.—$48,720

**Schwitzer-Cummins Co., Indianapolis**
Fans—$56,362

**Seaboard Electric Co., New York, N. Y.**
Servo controls—$227,520

**Seiberling Rubber Co., Akron**
Tires—400—$22,440
Tires & tubes—2,300—$36,609
Tires—32,730—$873,684

**Selector Industries, New York, N. Y.**
Components of radio compass—$41,254

**Servomechanisms, Inc., Mineola, N. Y.**
Rouge servo's—$88,000

**Shafer Bearing Corp., Downers Grove, Ill.**
Anti-friction bearing—7,235—$38,111

**Charles H. Shook, Inc., Dayton, Ohio**
Torque stand—$51,000

**Simmonds Aerocessories, Tarrytown, N. Y.**
Control—170—$25,512
Control assy., supercharger—940—$32,540
Misc. items—$106,737
Control assys. and parts for aircraft—$235,929

**Skinner Engine Co., Erie, Pa.**
Piston, piston ring—$50,000

**Snow-Nabstedt Gear Corp., Hamden, Conn.**
Parts for Diesel engines—5,328—$76,876

**Solar Aircraft Co., San Diego, Calif.**
Machinery and equip.—$575,000

**Solar Corp., Milwaukee, Wis.**
Batteries—10,000—$145,800
Batteries—7,800—$260,029
Batteries—12,000—$204,480

**Sorensen & Co., Inc., Stamford, Conn.**
Power units—$105,868
Power units—$439,968

**Southline Metal Products, Houston, Tex.**
Shipping container—14,715—$25,604

(*Turn to page 354, please*)

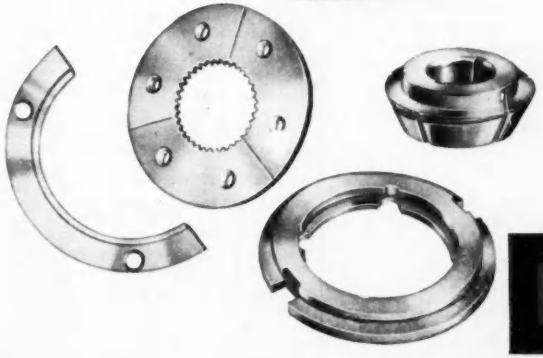



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Our specialized engineering and production facilities assure utmost precision in the manufacture of bronze parts. Intricate and complicated designs are produced with rigid quality control from the first foundry heat to final machining. In thrust washers, valve guides, seals, cam rings and similar precision parts . . . calling for helical cuts, chamfers, tapers, recesses . . . every detail of your blueprints is faithfully reproduced in bronze, in any quantity. Call your Federal-Mogul representative, or write:

**FEDERAL-MOGUL CORPORATION, 11037 Shoemaker Detroit 13, Mich.**

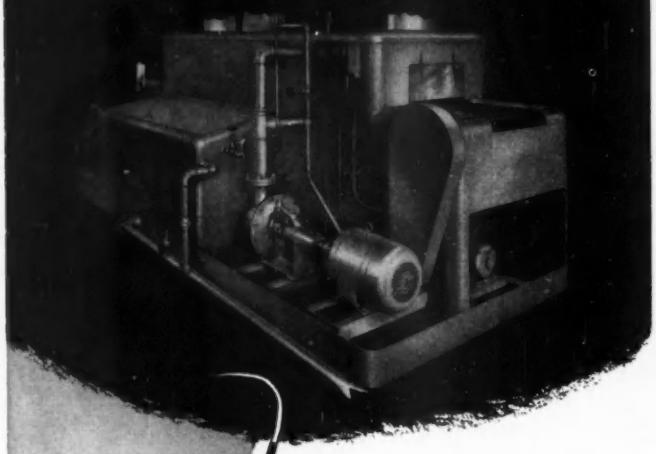
*Six manufacturing plants producing sleeve bearings in all designs and sizes, cast bronze bushings, rolled split-type bushings, bi-metallic rolled bushings, washers, spacer tubes and bronze bars.*



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Although small, this Cincinnati Cleaning Machine does a big job for this well known automotive and aviation accessory manufacturer Baskets of widely varying stampings and die castings travel through the machine for cleaning prior to inspection Many of the parts are easily damaged, have hollows or recesses, yet they are cleaned faster, better and at a saving of 25% over methods previously used.

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New catalog now available. Write for your copy.

Cincinnati

CLEANING & FINISHING MACHINERY CO., INC.

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## Defense Contracts

(*Continued from page 352*)

**Southwest Airmotive Co., Dallas, Tex.**
Overhaul of "R" type engines—$134,300

**Sperry Gyroscope Co., Great Neck, L.I.**
Flight computor system—$6,105,000
Maintenance parts—10—$25,175
Control, automatic pilot—$50,000
Generators—$149,716
Indicators—$30,000
Automatic pilot parts and tools—$372,580
Automatic pilot component—27—$273,000
Gland assembly for servos—500—$58,540
Components of automatic pilot—$1,124,154
Analyzers engine—$1,080,400
Quadrantal error compensators—$93,000
Services & material for automatic pilots —$50,000
Components of gyro compass—$2,291,659
Gyro compass components—$1,631,444

**Spicer Mfg. Div., Dana, Toledo, Ohio**
Shaft, joint, yoke—2,775—$134,475
Disk—4,600—$76,797

**Sprague Electric Co., North Adams, Mass.**
Electrical suppressor—$31,108

**Spreisch Tool & Mfg. Co., Buffalo, N. Y.**
Rack—$75,128
Rack assys.—$51,146

**Stamping Products & Mfg. Co., Detroit**
Body—625—$303,125

**Standard Products Co., Cleveland**
Windshield—1,000—$26,950

**Standard Thompson Corp., Dayton, O.**
Valve assembly—$37,404
Light assembly—$59,458

**Standard Wire Co., Detroit**
Terminal—2,840,000—$29,461

**Stanley Aviation Corp., Buffalo, N. Y.**
Downward ejection seat—$31,673

**Steelcraft Mfg. Co., Rossmoyne, Ohio**
Stand assembly—$101,220

**Steinthal & Co., Inc., New York, N. Y.**
Riser-jettisonable canopy—$53,541

**Sterling Engine, Buffalo, N. Y.**
Diesel engine—4—$50,000

**Stewart-Warner Corp., Chicago, Ill.**
Speedometer assy.—69,977—$236,686
Tachometer assy.—2,835—$43,925
Automotive equip.—$60,437
Gears—10,020—$26,252
Sending unit—260—$37,946
Floor ring gearshift—3,000—$26,100
Shafts, cores, instruments, etc.—15,785—$38,701
Pinion, shaft—43,481—$26,675
Water gage—25,000—$41,250

**Stewart-Warner Corp., S. Wind Div., Indianapolis**
Combustion heater—539—$128,136
Tachometer, assy.—143,889—$61,814
Personnel heater—110—$39,466
Heater switch—$26,875
Heater assy.—196—$135,551
Heater kit—200—$56,972
Heat exchanger—86—$95,729
Heater, complete—95—$56,909
Aircraft heater—101—$58,214
Aircraft heater—97—$32,225

**Stoughton Cab & Body Co., Stoughton, Wis.**
Cab closures—353—$95,205

**Stover Lock Nut & Mach. Corp., Easton, Pa.**
Nut—90,000—$47,060

**Studebaker Corp., South Bend, Ind.**
Cargo trucks—4,500—$12,380,000
Military trucks—$76,000,000

**Sullivan Bros., Philadelphia, Pa.**
Engines—8,780—$67,864

**Sundstrand Machine Tool Co., Rockford, Ill.**
Alternator drives—$1,119,710

(*Turn to page 356, please*)



# "Wonder how many there'll be in 1960?"

*You* guess! 50 Million? 60 Million? Whatever the number, they will surely be *better* cars . . . safer, more comfortable, and more efficient.

And what will make them better? Among other important factors, improved *castings*. Even now, cast camshafts, cylinder blocks and heads, pistons and other automotive castings are being designed for the engines of the future. These castings will be of advanced design, with greater strength and wear resistance and better machinability. These castings are being developed *now* by the largest independent contracting foundry in the world . . . Campbell, Wyant and Cannon . . . *where advanced metallurgical engineering, precision control, and mechanized production assure the highest quality castings at lowest cost.*

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CAST CYLINDER HEADS AND BLOCKS

CAST PISTONS

CAST CAMSHAFTS

CAST CRANKSHAFTS

CAST GEARS

CENTRIFUGALLY CAST CYLINDER LINERS

CENTRIFUSE BRAKE DRUMS

## Defense Contracts

(*Continued from page 354*)

**Sunnen Prods. Co., St. Louis, Mo.**
Cutters, holders, etc.—34,850—$52,942

**Super Electric Co., Jersey City, N. J.**
Antenna coil—$161,379

**Super Mold Corp., Lodi, Calif.**
Matrix, vulcanizer—325—$90,735
Matrix, vulcanizer—325—$90,735

**Surface Combustion Corp., Toledo, O.**
Heater assy.—213—$99,347

**Surrette Storage Battery, Salem, Mass.**
Batteries—2,000—$104,140
Batteries—13,000—$142,610

### —T—

**Taylor Machine Co., Cleveland**
Bomb hoists—$497,135

**Taylor-Wharton Iron & Steel Co., Dayton, O.**
Cylinder assemblies—$140,421

**The Heil Co., Milwaukee, Wisc.**
Pump, hoist—300—$25,830

**Telephonics Corp., Huntington, N. Y.**
Microphone & element—7,500—$35,140

**Texas Engineering & Mfg. Co., Dallas**
Rehabilitation & provision of aircraft—$5,000,000

**Thermoid Co., Trenton, N. J.**
Lining, brake band—4,500—$156,880
Linings—41,629—$63,332

**Thew Shovel Co., Lorain, Ohio**
Crane-shovels—30—$676,844

**Thiry Machine Co., Detroit**
Rod & housing—$160,150

**Thompson Products, Inc., Cleveland**
Pump assemblies—$201,881
Fuel booster pump—$37,625
Booster pumps—$33,049
Retainer, gasket, washer, sleeve—$94,758
Pumps—324—$47,628

**Thurman Machine Co., Columbus, Ohio**
Transmission guide—3,800—$56,493

**Timken-Detroit Axle Co., Detroit**
Components—$29,000,000

**Timken Roller Bearing Co., Canton, O.**
Roller bearings—503,720—$284,008
Roller bearings—$116,045
Roller bearings—22,655—$45,565
Roller bearings—$29,295
Bearings, cones—26,000—$84,969
Bearing, cone—241,124—$184,334
Cups—393,700—$213,439
Cones—462,764—$437,946

**Titeflex, Inc., Newark, N. J.**
Lead assy.—3,450—$76,950
Ignition equipment—$50,000
Ignition harness—$2,534,280

**Tobe Deutschmann Corp., Norwood, Mass.**
Filter—5,000—$91,600
Filters—$633,000

**Torrington Co., Torrington, Conn.**
Needle bearing—$25,567

**Transmission Gear Sales, Inc., Chicago**
Gear—27,500—$185,100

**Transportation Const. Corp., Seattle**
Screw, shim—15,120—$62,864
Brake shoe—679—$41,853
Bracket—13,375—$48,998
Hooks—100—$103,875

**Trico Prod. Corp., Buffalo, N. Y.**
Misc. nuts, kits—$25,940
Nut kit—54,000—$25,940
Windshield wiper—$29,216
Arms—402,601—$120,385
Windshield wiper motor—20,000—$102,800
Aux. drive kits—10,920—$64,746
Wiper, gasket, etc.—17,062—$41,660

**Triplex Corp. of America, Pueblo, Colo.**
Engine piston—55,000—$57,500
Piston & pin assy.—11,840—$90,893
Piston—175,000—$271,250
Pistons—25,000—$71,250
Piston w/pin—30,550—$32,449
Engine pistons w/pin—90,000—$80,100
Pistons—56,660—$208,456
Pistons—25,000—$71,250
Piston—71,361—$506,663

**Trk. Equipment Co., Inc., Buffalo, N. Y.**
Arm, track—17,359—$600,968

**Troy Sunshade, Troy, Ohio**
Arm, bar, windshield top—6,700—$52,656
Windshields—29,610—$200,619
Weatherstrip—86,000—$107,458
Arm, bar, windshield top—6,700—$52,656

**Tulsa Winch Co., Tulsa, Okla.**
Collars—$144,207

**C. K. Turk Corp., South Bend, Ind.**
Tarpaulin assy.—3,600—$37,410

**Twin Coach Co., Kent, Ohio**
Convertible buses—$21,400,000

**Twin Disc Clutch Co., Racine, Wis.**
Parts for Diesel engines—1,525—$28,300
Parts for Diesel engines—43,357—$55,636
Wheel assy.—400—$32,380
Shafts and pumps—1,590—$40,521
Wheel—380—$57,760

**Tyson Bearing Corp., Massillon, Ohio**
Cups—4,420—$29,992
Cones—$175,543

### —U—

**Union Diesel Engine Co., Oakland, Calif.**
Parts for Diesel engines—6,304—$71,456

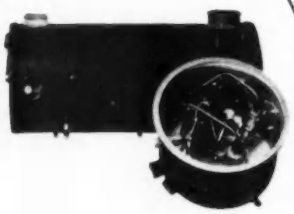
**Unit Crane & Shovel Corp., Milwaukee**
Crane shovel & equipment—100—$1,939,900

**United Aircraft Corp., Chance Vought Aircraft Div., Dallas, Tex.**
Spare parts—10,120—$763,148
Control lock assy.—537—$62,750
Parts, mod. kits, assys., etc.—$95,000

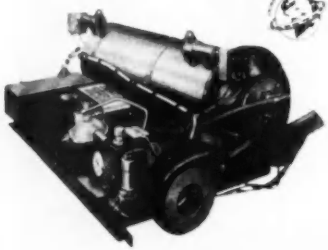
(*Turn to page 358, please*)


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wherever you want it . . .



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on the ground

Modern aircraft present large and complex heating problems—for cabins, instruments, guns, anti-icing equipment, etc. The S-200 (twice the heat in half the space) is one of many Janitrol heaters doing a vital job every day on hundreds of military and commercial aircraft—under every operating condition—all around the world. And they're doing it safely, reliably, with minimum maintenance.

Heat—produced efficiently and reliably—is also the function of Janitrol automotive booster heaters for buses, military ground vehicles and other diesel and gasoline driven equipment both mobile and stationary. Extreme compactness and dependability reflect engineering know-how, are the result of 35 years experience in all types of heating equipment. Janitrol heaters meet practically every *present* heating need. Moreover, Janitrol engineers are cooperating with the aircraft and automotive industries to meet the heating needs of *tomorrow's* air and ground equipment.

F. H. Scott, New York, N. Y., 225 Broadway; C. B. Anderson, Kansas City, Mo., 1438 Dierks Bldg.; Lee Curtin, Hollywood, Calif., 7046 Hollywood Blvd.; Frank Deak, P. A. Miller, Central District Office, Engineering Development and Production, Columbus, Ohio; Headquarters, Toledo, Ohio.

AIRCRAFT AND AUTOMOTIVE HEATERS *with the whirling flame*

**Janitrol**®

SURFACE COMBUSTION CORPORATION TOLEDO 1, OHIO




# Aeroquip

REG. TRADE MARK

## SELF-SEALING COUPLINGS

**Aeroquip provides the fastest, most economical method known for disconnecting and reconnecting charged, fluid-carrying lines. One coupling takes the place of two hand-operated valves. It reduces downtime for service and maintenance and permits speedy interchangeability of accessories. Used with water, hydraulic fluid, oil, diesel fuel, gasoline and refrigerant gas lines.**

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**JACKSON, MICHIGAN**

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| | 4301 N. W. 36TH ST., MIAMI SPRINGS, FLORIDA | 72-74 STAFFORD STREET, TORONTO, CANADA |
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AEROQUIP PRODUCTS ARE FULLY PROTECTED BY PATENTS IN U. S. A. AND ABROAD

## Defense Contracts

(*Continued from page 356*)

**United Aircraft Corp., P. & W. Aircraft Div., E. Hartford, Conn.**
Overhaul of turbojet engines & spare parts—$128,000

**United Aircraft Corp., Sikorsky Aircraft Div., Bridgeport, Conn.**
Helicopters—10—$3,137,684
Assys. and parts—$200,000
Assys. and kits—$25,000

**United Auto Parts Co., Kansas City, Mo.**
Body—625—$367,500
Windshield—2,000—$59,900
Housing—$44,320
Front axle kit—80,000—$72,200

**United Battery Co., Los Angeles**
Batteries—30,000—$588,400

**United Mfg. Co., New Haven, Conn.**
Test stand for aircraft generator—$26,389

**U. S. Axle Co., Inc., Pottstown, Pa.**
Drive shaft assy.—8,000—$90,353

**United States Elec. Tool Co., Cincinnati**
Drill, electric grinder—1,650—$47,059
Valves—512—$101,822

**U. S. Gage Div., Sellersville, Pa.**
Hydraulic pressure transmitter—$255,295
Oil pressure transmitter—$210,697
Oil pressure transmitter—$116,412
Pressure gages—$54,670
Torque transmitter—$103,517
Airspeed indicators—$57,408

**U. S. Mtr. Trk. Sales, Detroit**
Steering repair kit—20,000—$51,000
Kits—10,670—$29,555

**United States Rubber Co., Detroit**
Tires—6,500—$362,180
Tires—3,100—$62,560
Airplane casings & tubes—$220,332
Strip-8 shoe, shoe assy.—79,625—$8,278,133
Aircraft casings & tubes—$319,712
Airplane casings & tubes—$220,332
Tires—2,750—$398,596
Tires & tubes—67,540—$3,722,041
Tires—2,172—$61,179
Aircraft casings—$228,387
Camelback—100,000 lb.—$35,000
Camelback—100,000 lb.—$35,000
Tires—1,000—$50,290
Tires & tubes—9,555—$307,327
Tires—2,414—$49,440
Tubes—1,710—$4,147
Fuel cells—$200,000
Fuel tanks—$1,501,815
Fuel cells—$35,721
Liner assy.—706—$216,378

**United Specialties Co., Chicago**
Air cleaner—25,000—$69,750

**United Wire Supply Corp., Cranston, R. I.**
Tubing—$140,771

**Universal Products, Inc., Dearborn, Mich.**
Propeller yoke—77,000—$155,260
Yokes, shafts—28,500—$194,220

**Utility Trailer Mfg. Co., Los Angeles**
Landing gear leg—170—$51,425
Landing gear leg—170—$51,425

### —V—

**Vactron, Inc., Waltham, Mass.**
Servo test stand—$143,200

**Valve Div. (Eaton Mfg.) Detroit**
Exhaust valve—26,000—$250,900
Valves—22,211—$44,649

**Vancraft Tool & Mfg. Co., Detroit**
Wrench—$36,664

**Vapor Heating Corp., Chicago**
Temperature control box—304—$28,892

**Versatile Engineering & Mfg. Co., Dearborn, Mich.**
Arm w/housing—156—$43,502
Arm w/housing—156—$43,502
Kits—$31,460

**Vickers, Inc., Div. of Sperry Corp., Detroit**
Pumps—388—$267,720
Pump assemblies—$283,611

**Vinco Corp., Detroit**
Machinery and equipment—$120,000

### —W—

**Wagner Electric Corp., St. Louis, Mo.**
Master brake cylinder—4,680—$43,284
Hydraulic brake cup—275,000—$44,880
Cylinder—10,000—$217,950
Repair kit—75,000—$315,150
Springs—22,995—$63,853
Nuts, cam, shoe, lining, etc.—24,000—$27,402
Line, bolt—$70,910
Heads, lines, hose—16,100—$86,523
Union, washer—22,665—$57,699
Cups, cylinders—33,200—$33,599

**Wallace & Tierman Products, Belleville, N. J.**
Flasher—1,125—$88,989

**Ward LaFrance Trk. Corp., Elmira, N. Y.**
Retainer & axles—320—$203,762
Cab—260—$117,805
Radiator assy.—385—$41,546
Axle, differential, etc.—12,602—$206,149
Shafts—6,039—$26,136
Engine—368—$659,025
Engine water pump, pressure plate, etc.—1,640—$29,229
Shock absorber—5,644—$102,156
Housing yoke—2,800—$29,153
Clutch rep. kit—5,000—$57,550
Flange, gear, pinion, etc.—4,609—$41,216
Sleeve, disk—3,314—$53,924
Axle—280—$305,652
Pressure plate—1,000—$45,000
Handle, wiring kit, etc.—3,611—$38,268
Plugs, races, etc.—115,476—$216,165
Slip joint—1,895—$47,829
Shaft cover—$137,013
Tractor truck—3—$25,770
Repair kit for fuel pump—$52,843

(*Turn to page 360, please*)


# NOW YOU CAN MARK DEFENSE ORDERS FASTER—yet cut costs!

How? By putting a Markem marking machine right in your production line.

These unique machines mark *directly* on component parts—or on tags, labels, and pressure sensitive tapes. They save you time and money because they're simple to operate, speedy, and quickly adjustable for type changes. The special Markem inks are fast-drying and durable. All Markem machines make professionally clear imprints, thereby supplying necessary information about your product to anyone assembling or using it.

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# EATON

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Registered U.S. Patent Office

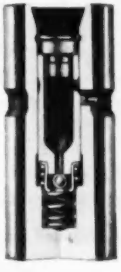
# HYDRAULIC VALVE LIFTERS

**—automatically maintain zero clearance in the valve train at all times**




## *Zero-Lash* opens the door to:

- Cam design improvement for optimum engine operating efficiency.
- Freedom from loss of efficiency from varnish and sludge.
- Perfect tappet adjustment for the life of the engine under all engine operating speeds and temperatures.
- Longer and better service for valves and seats.
- Silent valve train operation.
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Eaton engineers welcome the opportunity to discuss application of its multiplicity of hydraulic valve lifter designs to engines proposed or now in design.

**EATON MANUFACTURING COMPANY**
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**PRODUCTS:** Sodium Cooled, Poppet, and Free Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Rotor Pumps • Motor Truck Axles • Permanent Mold Gray Iron Castings • Heater-Defroster Units • Snap Rings Springtites • Spring Washers • Cold Drawn Steel • Stampings • Leaf and Coil Springs • Dynamatic Drives, Brakes, Dynamometers

# WITTEK

## NOC-OUT HOSE CLAMPS

*The Standard of the Automotive Industry*



Type A—Radiator Hose Connections

Type G-BB—Booster Brake Hose Connections No. G-B-HH for Hot Water Heater Hose

Type HP—High Pressure Hose Connections

Wittek Noc-Out Hose Clamps are designed in a variety of types made in many sizes for use by the automotive industry. Because they provide the most practical leakproof hose connection, they are specified by the leading manufacturers as standard, original equipment for automobiles, buses, trucks and tractors.

**Write for descriptive literature.**

Automotive HOSE CLAMPS

**WITTEK MANUFACTURING CO.**

4319 W. 24th Place, Chicago 23, Ill.

*Dependability in Hose Clamps for Over a Quarter of a Century*


## Defense Contracts

*(Continued from page 358)*

**Warner Auto Parts Div., Borg-Warner, Auburn, Ind.**
Idler gears, etc.—10,000—$67,200

**Warner Elec. Brake Mfg. Co., South Beloit, Ill.**
Jumper cable—12,000—$91,920
Coupling cable—20,000—$84,088
Electric covers—201,060—$49,460

**Warner Mach. Prod., Muncie, Ind.**
Repair kit for water pump—45,000—$51,750

**Washington Iron Works, Seattle, Wash.**
Parts for gasoline engines—2,064—$37,850

**Watson Automotive Equip. Co., Washington, D. C.**
Automobile, ambulance—34—$153,463

**H. S. Watson Co., Toledo, Ohio**
Parts for tank recovery—120—$26,382

**Waukesha Mfr., Waukesha, Wisc.**
Bearings, bushings, etc.—213,912—$138,856
Valves, washers—56,573—$87,427
Misc. gaskets—54,344—$23,884

**Wayne Fdry. & Stpg. Co., Detroit**
Filter tank assy.—26,583—$108,756
Fuel tanks—522—$33,664
Tanks—522—$33,664

**Weatherhead Co., Cleveland**
Valves & spare parts—$62,934

**Weber Body Co., Vassar, Mich.**
Sleds & parts—59—$56,585

**Weber Show Case & Fixture Co., Huntington Park, Calif.**
Seat assy. and parts—$49,201
Seat assy., etc.—$49,201

**Jos. Weidenhoff & Co., Chicago**
Battery charger, magneto tester—455—$269,024
Switches—6,410—$40,701

**Weldon Tool Co., Cleveland**
Pump assembly—$55,605

**Western Electric Co., Inc., New York**
Control assemblies—$51,834

**Western Gear Wks., Lynwood, Calif.**
Actuator—$42,990
Actuator for aircraft—52—$53,892

**Westinghouse Electric Corp., Dayton, O.**
Relays—$32,442
Alternators & voltage regulators—$42,031
Generators—$905,001
Aircraft hardware—$78,250
Alternator assys.—$193,065
Generators—$495,917
Relays—$58,750
Generators—300—$1,073,463

**Westinghouse Automotive Air Brake Co., Elyria, Ohio**
Parts for tractors—$87,218

**Westinghouse Elec. Corp., Detroit**
Lamps—1,980,000—$326,160
Lamps—1,480,000—$306,372

**Westinghouse Electric Corp., Lima, O.**
Voltage regulator—$59,400
Alternator assys.—$217,800

**Westinghouse Electric Corp., Phila.**
Torque tube assy.—179—$186,376
Parts for governors and turbines—2,430—$44,601
Relay assys.—1,811—$456,774
Actuator—200—$220,880
Parts for turbines—1,751—$37,569

**Westinghouse Elec. Corp., Washington**
Technical professional service—$50,000

**Weston Electrical Inst., Newark, N. J.**
Temperature indicator—$36,540
Electrical resistant bulb—$28,610

**White Motor Co., Cleveland**
Steering tube end—6,000—$30,232
Lifters, pipes, tubes, valves—2,635—$40,-020
Wire—98,715—$31,643

*(Turn to page 362, please)*


# For Dependable Hose Connections

**WITTEK STAINLESS STEEL *Aviation* HOSE CLAMPS**

For over a quarter century, Wittek has specialized in hose clamps, devoting craftsmen's skills to producing hose clamps of uniform accuracy in clamping action combined with superior physical strength, for dependable leakproof hose connections. This experience is yours when you place your aircraft hose clamp requirements with us.



**WITTEK FBSS (Radial Type)**

Made of stainless steel and utilizing the Wittek Floating Bridge. Tested and proved for dependable service on all types of aircraft applications. Long accepted as the standard of the industry.

**WITTEK WWD (Tangential Type)**



Made of stainless steel and available in all standard aircraft sizes. Also furnished in diameters up to 12" for duct and other special applications. Permits easy installation when hose is in place.

*Meet current AN specifications and have C.A.A. approval.*

Write for Details

**WITTEK** *Aviation* HOSE CLAMPS

**MANUFACTURING CO.**

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**Dee-Gee Gaskets are approved by the original equipment manufacturers and are sold to them for distribution to their service departments. We assemble motor overhaul kits, oil pan sets, complete overhaul kits and many other gasket units, using attractive envelopes and cartons which not only protect the gaskets but also add greatly to their sales appeal.**

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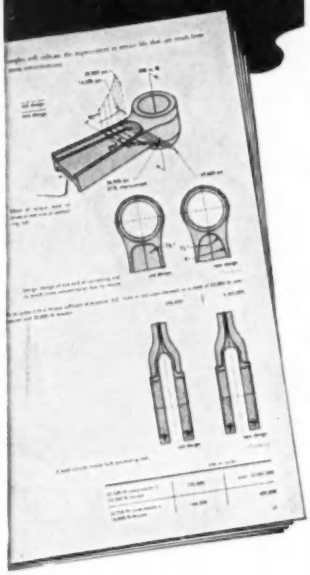
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DETROIT 23, MICHIGAN

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*This book gives the answers..*



How to avoid the localized stresses which start failure is a basic problem of design. This 72 page booklet analyzes many good and bad features of design. It also deals with problems of steel selection and treatment from the viewpoint of the design engineer —instead of the metallurgist.

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## Defense Contracts

*(Continued from page 360)*

Gears, studs—5,274—$37,647
Cylinder—11,750—$34,161
Engines—$7,085,084
Engine—420—$368,634
Engine—420—$368,634
Locker lid—7,771—$134,834

**White Machine Wks., Eau Claire, Wis.**
Engine cylinder sleeve—30,304—$244,023

**Whitney Chain Co., Hartford, Conn.**
Misc. keys—6,198,000—$36,790
Keys—1,753,600—$36,290

**Wm. R. Whittaker Co., Los Angeles**
Oil shut-off valve—190—$31,851
Valve—1,730—$28,252
Cylinder assembly—$64,332
Hydraulic valve shutoff—2,005—$235,748
Valve assy.—225—$26,708

**Wianoko Engineering Co., Altadena, Calif.**
Pressure transmitters—$96,900

**Edwin L. Wiegan Co., Pittsburgh, Pa.**
Gun heater system—20,166—$900,000

**E. A. Wildermuth, Brooklyn, N. Y.**
Repair kit for carburetor—171,616—$212,-642

**Willard Storage Battery Co., Cleveland**
Batteries—25,000—$895,150
Storage batteries—5,216—$194,608
Batteries (dry)—3,393—$37,652
Batteries—5,575—$189,834
Batteries—54,000—$2,187,060

**Willys-Overland Motors, Toledo, Ohio**
Rod, shaft, shifter, bracket—4,300—$43,588
Disk, plate—10,000—$34,190
Kits—10,000—$59,800
Kits, pulleys, bushings, etc.—46,250—$28,-549
Seat assy.—2,000—$29,260
Truck—218—$266,303
Bushing—$70,576
Truck—688—$1,076,862
Axle, gears, bearing—4,910—$703,566
Cone, screw, cup, pin, etc.—137,227—$207,-855
Transfer case—1,000—$35,490
Propeller shaft—5,500—$54,450
Top cover—70,200—$99,818
Axle shaft—30,500—$129,035
Top cover—26,500—$60,620
Exhaust pipe, plate assy., etc.—67,000—$61,660
Connecting rod—16,700—$41,082
Steering wheel—15,000—$30,450
Trucks—$1,076,862
Levers, bearings, caps—41,480—$1,041,217
Shield, bracket—$61,754
Water pump—47,000—$77,170
Bolt, shaft, etc.—15,121—$84,210
Bell crank, gear—39,959—$189,054
Covers, pumps, kits, etc.—17,560—$26,407
Utility truck—13,763—$33,463,934
Engine assy.—20,730—$5,665,700
Ring—$163,610
Spring, bracket—69,220—$28,767
Shafts, gears, etc.—281,500—$165,389
Pulley—35,000—$34,300

**World Bestos Corp., Firestone Tire & Rubber Co., New Castle, Ind.**
Linings—314,300—$445,187.50

**Wilson Mechanical Inst. Co., New York**
Hardness testers—$60,265

**Winamac Steel Products, Winamac, Ind.**
Springs—20,000—$58,000

**Winter Weiss Co., Denver, Colo.**
Bearings, chain, wheel—4,850—$26,927

**Wm. Bros. Boiler & Mfg. Co., Minneapolis, Minn.**
Tooling, bulldozer, mount.—206—$861,262
Exhaust pipe—$61,660

**Wire Assemblies Corp., Detroit**
Conduits, cables, harness—53,000—$68,761

**Wohlert Corp., Lansing, Mich.**
Lifter—$39,364
Gear—$59,318

**Woodward Governor Co., Rockford, Ill.**
Parts for Diesel engines—9,594—$59,598

**Wolverine Diesel Power Co., Detroit**
Electric plant, portable—$282,716

*(Turn to page 364, please)*


**CHICAGO Mounted WHEELS**




*10 Big Advantages*

1. First in the Field—Unexcelled "Know-How"
2. Stronger Mandrels—Special Analysis Steel
3. Wheels Guaranteed to Remain on Mandrels
4. Constant Concentricity for Perfect Balance
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7. Greater Cutting Freedom—Faster Cutting Action
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**Free Sample Wheel**

Give details of your operation. We'll supply correct sample. No obligation. Write for Free Catalog.

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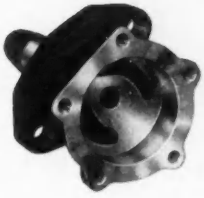
ASK **BAIRD** ABOUT IT!

# HIGH PRODUCTION TOOLING

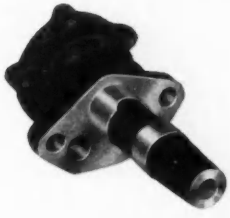



## 5 LONGITUDINAL, 5 CROSS SLIDES *with a* BAIRD *automatic* CHUCKER

### MACHINING A CAST IRON OIL PUMP BODY



1ST OPERATION: Face flange, finish counterbore I D and depth, cut groove in flange, drill and tap 5 $^{29}/_{64}$" holes. Work held stationary for drilling and tapping . . . OTHERWISE WORK ROTATES. Production: 308 pieces per hour.



2ND OPERATION: Face and turn shank end, undercut spot drill and drill center hole thru to cored section, turn OD of shank, ream center hole, drill 2 $^{15}/_{32}$" holes. Production: 222 pieces per hour.

### Completely Automatic Operations . . . Hands Free

THE OPERATOR of a Baird 7", 6 spindle horizontal chucking machine likes his job. The open construction gives him easy access to all tooling . . . fast set-up. The automatic mechanism that operates the chucks does away with chucking levers, valves and gages . . . leaves both hands free. Reliable mechanical and electrical safety devices protect him, his machine, and the work. He clearly sees the advantages of independently operated tool slides, many combinations of spindle speeds and the means to mill and cross mill. He's proud of his accomplishments for every shift.

THE PRODUCTION MANAGER likes the way the time sheets read (note this typical job). You can't go far wrong with such production.

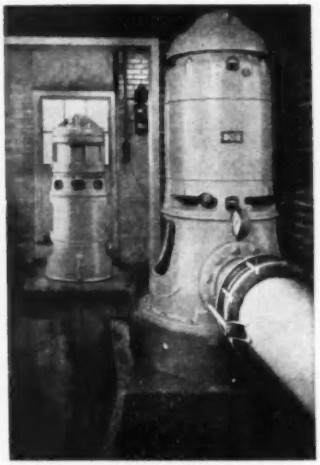
MANAGEMENT, that makes the investment in Baird high production machinery, sees the favorable financial returns . . . the many profitable operating years of the Baird 7.6H Chucker . . . the machine that keeps young in performance, even when it becomes old in years.

**FULL DETAILS AND BULLETIN ON REQUEST**

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AUTOMATIC MACHINE TOOLS • AUTOMATIC WIRE & RIBBON METAL FORMING MACHINES • AUTOMATIC PRESSES • TUMBLING BARRELS

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**BEATRICE, NEBRASKA**

# UPS WATER SUPPLY

**With a Layne Short Setting Booster Pump**

From four Layne Well Water Units, Beatrice, Nebraska was putting 1600 gallons of water per minute into the city through their six miles of 14 inch mains. Growth of population and new industries created a need for more. The problem was easily, quickly and economically solved by installing a Layne Short Setting Booster Pump in line with the wells. As a result, water supply was increased to 2,380 gallons per minute—nearly 41 per-cent.

The Layne 2-stage, 15 inch bowl booster pump, powered with a 100 H.P. motor was easily accommodated in a small pump house addition, thus saving the cost of extra heating equipment. Installed in 1948, it is giving highly satisfactory service.

These Layne Short Setting booster pumps may be used by other cities—and factories as a means of increasing water supply at a very nominal cost.

If you are in need of more water either from your present wells, or from new units, Layne engineers will gladly survey your present equipment and make dependable recommendations. For further information, catalogs, etc. address

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**WELL WATER SYSTEMS**

**VERTICAL TURBINE PUMPS**

**ASSOCIATED COMPANIES:** Layne-Arkansas Co., Stuttgart, Ark. • Layne-Atlantic Co., Norfolk, Va. • Layne-Central Co., Memphis, Tenn. • Layne-Northern Co., Mishawaka, Ind. • Layne-Louisiana Co., Lake Charles, La. • Louisiana Well Co., Monroe, La. • Layne-New York Co., New York City • Layne-Northwest Co., Milwaukee, Wis. • Layne-Ohio, Columbus, Ohio • Layne-Pacific, Inc., Seattle, Wash. • The Layne-Texas Co., Ltd., Houston, Texas • Layne-Western Co., Kansas City, Mo. • Layne-Minnesota Co., Minneapolis, Minn. • International Water Corporation, Pittsburgh, Pa. • International Water Supply, Ltd., London, Ont., Can. • Layne-Hispano Americana, S. A., Mexico, D. F. • General Filter Company, Ames, Iowa


## Defense Contracts

(*Continued from page 362*)

**Wright Aeronautical Corp., Wood Ridge, N. J.**
Recondi:ioning cylinder assys.—$5,800,613
Parts for engines—$4,942,645
Spare parts—$3,246,809
Engine parts—$3,040,000
Rework engine cams—$114,552
Overhaul & modification of engines—490—$8,800,000
Parts for engines—$1,500,000
Services & material to operate Gov't owned engines—$150,000
Modification parts for engines—$3,854,605

**—Y—**

**Yale & Towne Mfg. Co., Stamford, Conn.**
Parts for fuel servicing trailers—$32,151

**Pat Young Service Co., Cleveland**
Carburetor—14,000—$78,722
Carburetor—14,000—$78,722

**—Z—**

**Zenith Carburetor Div., Bendix Aviation Corp., Detroit**
Kit—47,950—$65,861
Gasket—48,320—$76,779
Carburetor—$41,696
Filter, washers—12,317—$25,667
Carburetor—2,250—$36,468
Carburetor, engine assy.—3,200—$41,376
Carburetors—11,320—$199,243

### *"Five Percenters" Not Needed for War Contracts*

Small businesses do not need to employ "five percenters" to get war contracts, according to Brig. Gen. David J. Crawford, commanding general of Ordnance Tank-Automotive Center in Detroit. He said that an increasing number of small businessmen have been approached by individuals claiming to have influence in getting government contracts for a fee plus commissions. He said that such persons are not able to obtain contracts which the companies themselves could not get. The General emphasized that the Armed Forces procurement regulation applies for Army, Navy and Air Forces procurement and that manufacturers and dealers seeking business with these services should write directly to the appropriate office. He adds that the Ordnance Tank-Automotive Center in Detroit is the purchasing office for vehicles and spare parts and that individuals wishing to sell that category of goods need only to contact the Center directly.

### New Cleaning Method

(*Continued from page 224*)

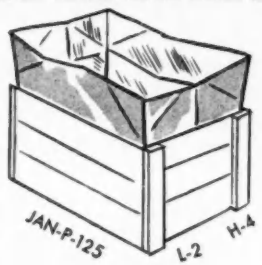
new equipment is said to be giving the castings a better finish, and is saving time on chiseling and grinding. Inspection has been made easier as flaws show up more clearly. Machine tools in customers' shops are reported to last longer because of the complete removal of burnt-in sand.


Kennedy

YOUR DEPENDABLE SOURCE OF

**MILITARY PACKAGING**



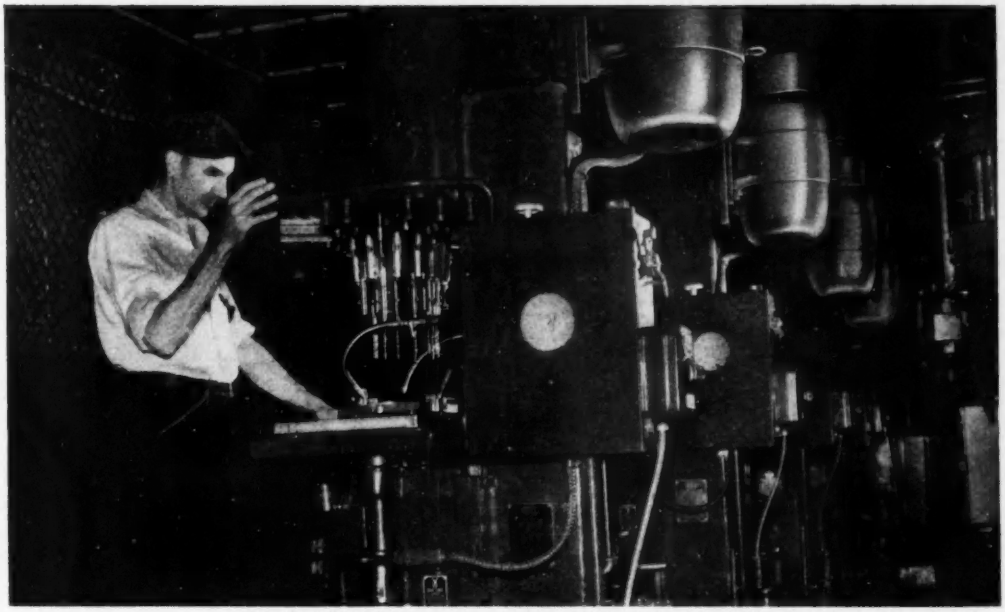

**—Tailor-Made— to ARMY-NAVY SPECIFICATIONS**

Kennedy's long-experienced packaging engineers are always ready to develop, and Kennedy's extensive plant is always fully equipped to produce unlimited varieties of paper, plastic, and foil bags for practically any product or material . . . tailor-made to Army-Navy specifications.

This packaging is precisely engineered to provide the *full protection* so vital for military materials in transit and storage . . . *full protection* against air, moisture, water, dust, dirt, under extremes of heat and cold as requirements demand . . . *full protection* for all types of products from huge aircraft engines to tiny precision instruments; even food and medical supplies . . . assuring delivery of your product in the same condition as when it leaves the factory, regardless of time or weather.

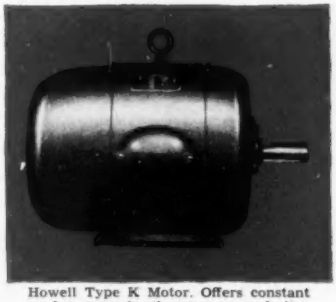
Yes, Kennedy is your dependable source of military packaging . . . *including bags of V.P.I. materials* . . . no matter what the requirements may be.

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NEW YORK • CHICAGO • DETROIT • CLEVELAND
LOS ANGELES • PHILADELPHIA • BUFFALO

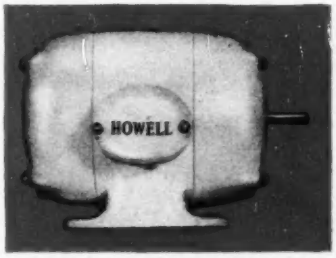


Howell totally enclosed motors power these multiple drill spindles in the plant of a leading auto maker.

# HOW MUCH ARE ELECTRIC MOTORS WORTH?



Howell Type K Motor. Offers constant performance in the presence of dirt, dust, fumes and moisture. Sizes from 3 to 150 H.P. at 1800 R.P.M. Either vertical or horizontal mounting.




Howell Sanitary Motors meet the most exacting standards of the dairy and food industries. They contain no pockets, cracks, or crevices. Available for vertical or horizontal mounting.

The actual cost of the motors you see pictured here amounts to hundreds of dollars.

But their true worth, in terms of supplying the power for these multiple drill spindles to turn out finished parts, runs into thousands.

It's tough applications like this which prove the real value of Howell Industrial Type Motors. For your jobs, Howell serves three ways: (1) by engineering electric motors to your job; (2) by furnishing motors of the highest quality; (3) by serving you after the sale.

May we apply our facilities and engineering ability to your problems?

**HOWELL ELECTRIC MOTORS COMPANY**

**Howell, Michigan**

HOWELL Red Band MOTORS

HOWELL MOTORS

HOWELL ELECTRIC MOTORS CO., HOWELL, MICH.

*Precision-built industrial motors since 1915*

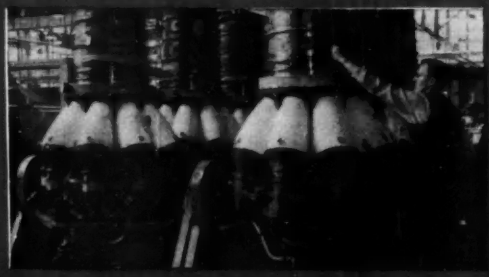


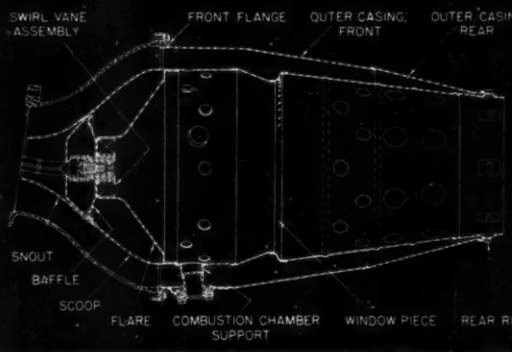

**150-TON TRIPLE-ACTION LAKE ERIE HYDRAULIC PRESS . . .** in the East Hartford, Connecticut plant of the Pratt & Whitney Aircraft Division of United Aircraft Corporation. 400-ton triple-action press appears in left background. These presses are used principally to draw stainless steel and Nimonic 75 parts for turbo-jet engines. The work done by these presses is probably the most accurate of metal forming operations performed in industry today. Extremely close tolerances are possible because of the complete control of pressing speeds and pressures that is possible with hydraulic units. This includes precision speed controls, pressure control and depth controls for the main ram and triple-action as well as individual pressure controls for the four corners of the blank holder. Press is shown drawing a long truncated cone in a single operation.

# Precision is paramount at PRATT & WHITNEY AIRCRAFT

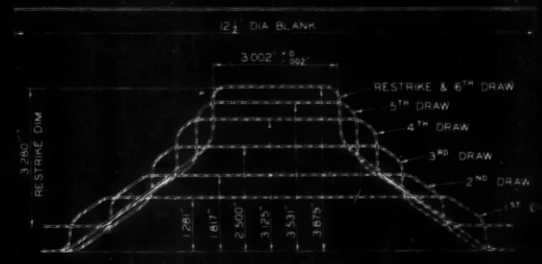
**LAKE ERIE**
ENGINEERING CORP.
BUFFALO, N.Y. U.S.A.

## Lake Erie Hydraulic Presses help attain it in the production of components for Turbo-Jet Engines






Cross-sectional diagram of the combustion chamber, or burner, of a JT-6 Jet Engine illustrating the assembly of stamped, deep-drawn and rolled and welded sheet-metal parts. Components of high-strength, heat-resistant stainless steel and Nimonic 75 must fit "perfectly" to permit proper assembly and dependable operation of the engine. Flexible and precise control of the hydraulic presses makes close tolerance production of deep-drawn parts possible.




One of the most interesting deep-drawn parts in the combustion chamber assembly is the flame-tube flare. This part, which is made of 0.048-inch Nimonic sheet, requires six draws each of which is followed by bright annealing. Deep-drawn parts of austenitic stainless and Nimonic are subjected to severe cold-working. Draw depth is calculated on a basis of the degree of work hardening that occurs.

Two of the principal materials used in the construction of the JT-6 "Turbo-Wasp" Jet Engine are a stainless steel of 18-8 analysis and a heat-resistant chromium-nickel-iron alloy known as Nimonic 75. Jet engine parts made from these materials are subjected to high temperatures and fatigue resulting from high velocity air flow. To stand up in service for any appreciable time and to meet the exacting requirements for mating fits in welding, the parts must be formed to extremely close tolerances. In producing components such as the flame-tube flare, flame-tube scoop, flame-tube snout, combustion chamber supports and bar sleeves, hydraulic presses in sizes up to 400-tons are employed for the deep-drawing operations. The flexibility of control that is built into hydraulic presses makes it possible to form these high-strength, heat-resistant, austenitic materials into the various components efficiently and with the utmost precision.

**LAKE ERIE ENGINEERING CORP.**

MANUFACTURERS OF
HYDRAULIC PRESSES AND SPECIAL MACHINERY

★

General Offices and Plant:

**509 Woodward Avenue, Buffalo 17, N. Y.**

DISTRICT OFFICES IN NEW YORK, CHICAGO AND DETROIT

Representatives in Other Principal Cities in the United States and Foreign Countries

Manufactured in Canada by: Canada Iron Foundries Limited

LAKE ERIE ®

LEADING MANUFACTURERS OF HORIZONTAL AND VERTICAL HYDRAULIC EXTRUSION PRESSES FOR STEEL...BRASS... COPPER...ALUMINUM...LEAD PIPE...SOLDER...LEAD ENCASING...SPECIAL ALLOYS...CARBON...AND OTHER MATERIALS

# PAINT OVENS

## One Small Box Oven or a Complete Finishing System

**INCLUDING**
**CONVEYORS, SPRAY BOOTHS, CLEANING UNIT**

## DRY-SYS EQUIPMENT

**IS USED BY LEADING MANUFACTURERS EVERYWHERE**

•

OUR ENGINEERS WILL GLADLY SUBMIT
LAYOUT AND QUOTATION—NO OBLIGATION

•

## DRYING SYSTEMS, Inc.

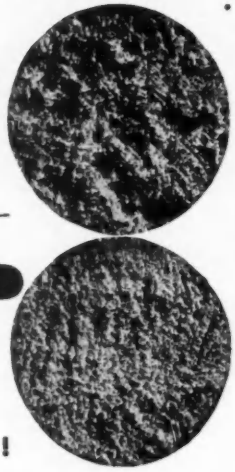
**1810-A Foster Ave., Chicago 40, Ill.**

ENGINEERS • CONTRACTORS • MANUFACTURERS

# SWITCH

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TO NON-GRAN CENTRIFUGAL CASTINGS



**Eliminate Porosity!**
**Improve Physical Properties!**

Where porosity problems must be met in handling liquids or gases many concerns find the trouble-saving answer in Non-Gran Centrifugal Castings. They are leak-proof—assure greater strength, take more punishment, last longer.

If you use liners, sleeves, rings, rolls, bushings, etc., in bronze alloys—rough or machined—check with Non-Gran. Request booklet—"Our Story In Pictures." American Non-Gran Bronze Co., Berwyn, Pa.

PRECISION MACHINE WORK — NON-GRAN — CASTINGS • SAND & CENTRIFUGAL


## Directory of Manufacturers

(*Continued from page 190*)

HALL-SCOTT Motor Div., ACFS-Brill Motors Co., Berkeley 10, Calif.
HERCULES Motors Corp., Canton 2, Ohio.
INTERNATIONAL HARVESTER Co., Chicago 1, Ill.
JACOBS Aircraft Engine Co., Pottstown, Penna.
KERMATH Manufacturing Co., Detroit 8, Mich.
The LATHROP Engine Co., Mystic, Conn.
LE ROI Company, Milwaukee 14, Wisc.
LYCOMING-SPENCER Div., AVCO Mfg. Corp., Williamsport, Penna.
MACK, Manufacturing Corp., New York 1, N. Y.
MINNEAPOLIS-MOLINE Co., Minneapolis 1, Minn.
NORDBERG Manufacturing Co., Milwaukee 7, Wisc.
The OLIVER Corp., Charles City, Iowa.
PACKARD Motor Car Co., Marine Div., Detroit 32, Mich.
RED WING Motor Co. (Thorobred), Red Wing, Minn.
REO Motors, Inc., Lansing 20, Mich.
SCRIPPS Motor Co., Detroit 8, Mich.
STERLING Engine Co., Buffalo 13, N. Y.
TWIN COACH Co., Kent, Ohio.
UNIVERSAL Motor Co., Oshkosh, Wisc.
The VIMALERT Co., Ltd., Jersey City 5, N. J.
WAUKESHA Motor Co., Waukesha, Wisc.
The WHITE Motor Co., Cleveland 1, Ohio.
WILLYS-OVERLAND Motors, Inc., Toledo 1, Ohio.
WISCONSIN Motor Corp., Milwaukee 14, Wisc.

### AUTOMOTIVE DIESEL ENGINES

For details of their products see pages 166-171.

The BUDA Company, Harvey, Ill.
CATERPILLAR Tractor Co., Peoria 8, Ill.
CLIMAX Engine & Pump Mfg. Co., Chicago 4, Ill.
CONTINENTAL Motors Corp., Muskegon, Mich.
CUMMINS Engine Co., Inc., Columbus, Ind.
DETROIT DIESEL Engine Div., General Motors Corp., Detroit 28, Mich.
GRAY MARINE Motor Co., Detroit 7, Mich.
HALLETT Manufacturing Co., Englewood, Calif.
HARNISCHFEGER Corp., Diesel Div., (P&H), Port Washington, Wisc.
HERCULES Motors Corp., Canton 2, Ohio.
HILL Diesel Engine Corp., Lansing 3, Mich.
INTERNATIONAL HARVESTER Co., Chicago 1, Ill.
KERMATH Manufacturing Co., Detroit 8, Mich.
MACK - INTERNATIONAL Motor Truck Corp., New York 1, N. Y.
MURPHY Diesel Co., Milwaukee 14, Wisc.
The NATIONAL Supply Co., (Atlas & Superior), Springfield 99, Ohio.
The OLIVER Corp., Charles City, Iowa.
RED WING Motor Co., Red Wing, Minn.
SCRIPPS Motor Co., Detroit 8, Mich.
R. H. SHEPPARD CO., Inc., Hanover, Pa.
STERLING Engine Co., Buffalo 13, N. Y.
WAUKESHA Motor Co., Waukesha, Wisc.

### DIESELS FOR DIESEL-ELECTRIC LOCOMOTIVES

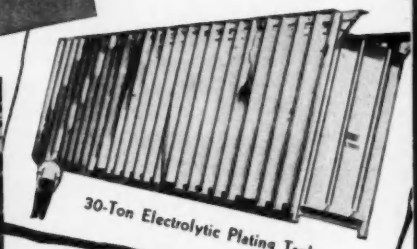
For details of their products see page 170.

AMERICAN Locomotive Co. (Alco), Schenectady 5, N. Y.
The BALDWIN Locomotive Works, Philadelphia 42, Penna.
The COOPER-BESSEMER Corp., Mt. Vernon, Ohio.
ELECTRO-MOTIVE Div., General Motors Corp., La Grange, Ill.
FAIRBANKS, MORSE & Co., Chicago 5, Ill.

(*Turn to page 370, please*)

# DO IT ON A VERSATILE Cincinnati Press Brake





30-Ton Electrolytic Plating Tank



Control House for Steel Mill

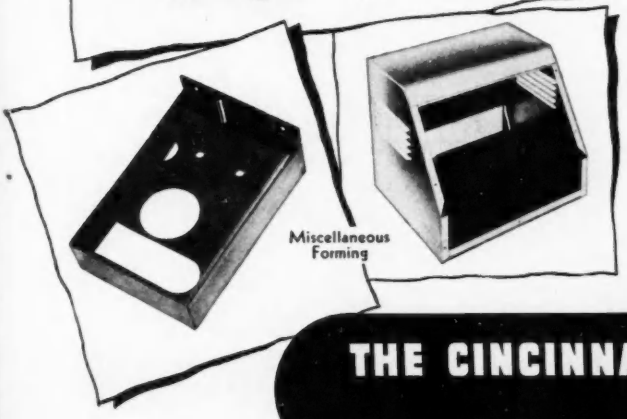


Automotive Products



Roll Tables for Steel Mill

*Illustrations courtesy of Charles T. Brandt, Inc.*



Miscellaneous Forming

The press brake capacity of Charles T. Brandt, Inc., adequately takes care of the job, whether large or small—in jobbing or production quantities.

In a highly competitive field, the powerful and versatile Cincinnati Press Brakes are profitable performers. They not only meet competition—they set the pace.

Write for catalog B-2A, describing operations, features, and special arrangements including wide beds and rams, bed and ram extensions, deeper gaps, higher die space and other features.

**THE CINCINNATI SHAPER CO.**

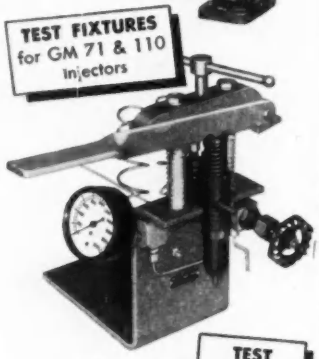
CINCINNATI 25, OHIO, U.S.A.

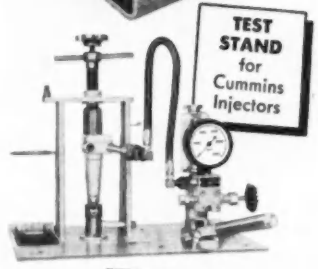
SHAPERS · SHEARS · BRAKES

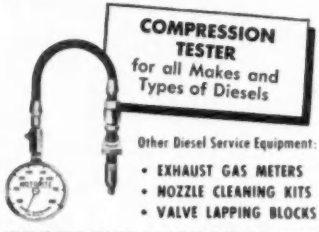
CINCINNATI

# Essential DIESEL TUNING TOOLS




Other Diesel Service Equipment:

- EXHAUST GAS METERS
- NOZZLE CLEANING KITS
- VALVE LAPPING BLOCKS

BACHARACH INDUSTRIAL INSTRUMENT COMPANY
7000 Bennett Street, Pittsburgh 8, Pa.

*Send complete information on your Specialized Diesel Tuning Tools*

Name.....

Company.....

Address.....

.....


## Directory of Manufacturers

(*Continued from page 368*)

### AIRCRAFT GAS TURBINES

For details of their products see pages 156 and 157.

UNITED STATES

ALLISON Div., General Motors Corp., Indianapolis 6, Ind.
GENERAL ELECTRIC CO., Aircraft Gas Turbine Div., West Lynn, Mass.
PRATT & WHITNEY Aircraft Div. of United Aircraft Corp., East Hartford 8, Conn.
WESTINGHOUSE ELECTRIC Corp., Aviation Gas Turbine Div., Lester, Philadelphia 13, Pa.
WRIGHT Aeronautical Corp., Wood-Ridge, New Jersey.

BRITISH

ARMSTRONG SIDDELEY Motors Ltd., Coventry, Eng.
BRISTOL Aeroplane Co., Ltd., Filton House, Bristol, Eng.
De HAVILLAND Aircraft Co., Ltd., Hatfield, Hertfordshire, Eng.
D. NAPIER & SON, Ltd., Acton, London W.3, Eng.
ROLLS-ROYCE, Ltd., Derby, England.

### U. S. AIRCRAFT ENGINES

RECIPROCATING TYPE

For details of their products see pages 174 and 175.

AIRCOOLED Motors, Inc. (Franklin), Syracuse 8, N. Y.
CONTINENTAL MOTORS Corp., Aircraft Engine Div., Muskegon, Mich.
FAIRCHILD Engine Div. (Ranger), Fairchild Engine & Airplane Corp., Farmingdale, N. Y.
GLADDEN Products Corp. (Kinner), Glendale 4, Calif.
JACOBS Aircraft Engine Co., Pottstown, Penna.
LYCOMING-SPENCER Div., Avco Manufacturing Corp., Williamsport 38, Penna.
PRATT & WHITNEY Aircraft, Div. United Aircraft Corp., East Hartford 8, Conn.
WRIGHT Aeronautical Corp., Div. Curtiss-Wright Corp., Wood-Ridge, N. J.

### U. S. SMALL GASOLINE ENGINES

For details of their products see pages 176 and 177.

BRIGGS & STRATTON Corp., Milwaukee 1, Wisc.
CLINTON Machine Co., Clinton, Mich.
CONTINENTAL Motors Corp., Air Cooled Engine Div., Detroit 26, Mich.
CUSHMAN Motor Works, Inc., Lincoln 1, Neb.
GLADDEN Products Corp., Glendale 4, Calif.
HOMELITE Corp., Port Chester, N. Y.
JACOBS Aircraft Engine Co., Pottstown, Pa.
JACOBSEN Manufacturing Co., Racine, Wisc.
KERMATH Manufacturing Co., Detroit 8, Mich.
The LAUSON Company, New Holstein, Wisc.
LE ROI COMPANY, Milwaukee 14, Wisc.
McCULLOCH Motors Corp., Los Angeles 45, Calif.
NOVO Engine Co., Lansing 5, Mich.
D. W. ONAN & Sons Inc., Minneapolis 5, Minn.
REO Motors, Inc., Lawn Mower Div., Lansing 20, Mich.
SALSBURY Motors Div., Wayne Mfg. Co., Pomona, Calif.

(*Turn to page 372, please*)


# PAGE WIRE

ROUND
FLAT
OR
SHAPED

LOW CARBON
HIGH CARBON
STAINLESS
SPECIAL ALLOY
ARMCO IRON

**You draw the Shape —*Page can draw the Wire***

—the way you want it for your production—whether it's ALL of your product, or only a part. Cross-sectional areas up to .250″ square; widths to ⅜″; width-to-thickness ratio not exceeding 6 to 1.

**for Wire or Information about Wire—**

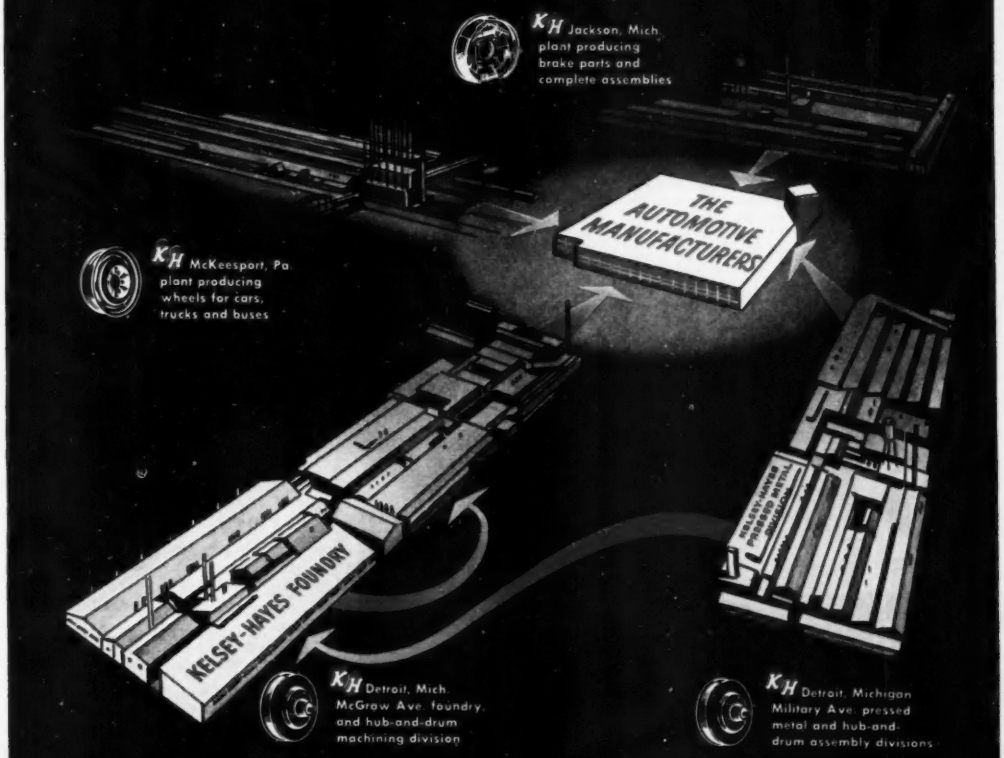
*Get in touch with Page!*

PAGE Monessen, Pa., Atlanta, Chicago, Denver, Detroit, Los Angeles, New York, Philadelphia, Portland, San Francisco, Bridgeport, Conn.

PAGE STEEL AND WIRE DIVISION
AMERICAN CHAIN & CABLE

# KELSEY-HAYES

## Foundry and Other Plant Units Coordinate Efficiently to Provide Wheels, Hub-and-Drum and Brake Assemblies to Automotive Manufacturers




huge Foundry, in addition to making many other products for automotive manufacturers, produces brake drums which are machined and assembled at both McGraw and Military Ave. Plants. These hub and drum assemblies, along with wheels from McKeesport Plant, and brake parts and assemblies from Jackson Plants are coordinated in their shipments directly to leading automotive manufacturers to efficiently meet their production assembly requirements.



. . . ASSURES PROVEN PRODUCTS AT . .

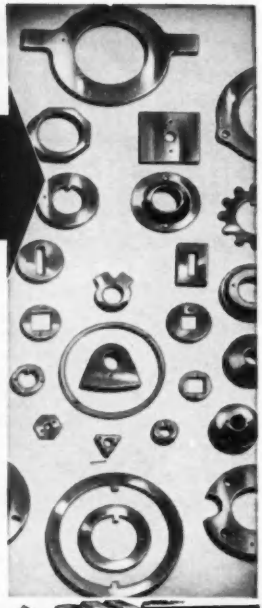
KELSEY-HAYES WHEEL COMPANY

DETROIT 32, MICHIGAN

PRODUCTS: Wheels—Hub and Drum Assemblies—Brakes—Vacuum Brake Power Units—for Passenger Cars, Trucks, Buses—Electric Brakes for House Trailers and Light Commercial Trailers—Wheels, Hubs, Axles, Parts for Farm Implements.
PLANTS: Kelsey-Hayes Plants in Michigan (4); McKeesport, Pa.; Los Angeles, Calif.; Davenport, Iowa; Windsor, Ontario, Canada.

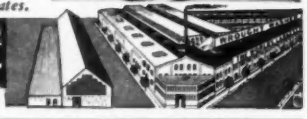
Since 1887

MILWAUKEE WROT WASHERS



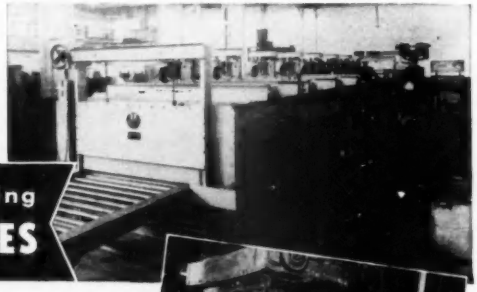
*Better* WASHERS ... Competitively Priced

Large volume production, the most advanced methods and facilities, plus more than 60 years of continuous experience in the manufacture of Washers, are factors that enable us to offer you top quality washers and stampings at competitive costs. Over 22,000 sets of dies for making Washers of every type (Standard and Special), from every type of material, for every purpose, in any finish. STAMPINGS of all descriptions; Blanking, Forming, Drawing. *Submit your blueprints and quantity requirements for estimates.*



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*The World's Largest Producer of Washers*
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Heat Treating FURNACES

For Ferrous and Non-Ferrous

Defense Products

Let EF engineers—with their successful record during the World Wars I and II—help you convert to defense production. Our complete facilities, plus the "know-how" gained on hundreds of shell, aircraft, tank, ammunition component and other defense projects can save you time and expense. Better write us about your change-over problems today.



Gas-Fired, Oil-Fired EF and Electric Furnaces
for any Process, Product or Production
THE ELECTRIC FURNACE CO.
WILSON ST. at PENNA. R. R. Salem - Ohio


## Directory of Manufacturers

(*Continued from page 370*)

UEBELHOER Brothers, Inc. (Ultimotor), Buffalo 15, N. Y.
UNITED Engine Co., Lansing, Mich.
UNIVERSAL Motor Co., Oshkosh, Wis.
WISCONSIN Motor Corp., Milwaukee 14, Wisc.

### U. S. OUTBOARD MOTORS

For details of their products see pages 178 and 179.

ATLAS Supply Co. (Atlas-Royal), Newark, N. J.
CHAMPION Motors Co., Minneapolis 13, Minn.
CHRIS-CRAFT Corp., Grand Rapids, Mich.
CORSAIR Outboard Motor Co., Minneapolis 13, Minn.
EVINRUDE Motors (Evinrude), Milwaukee 9, Wisc.
FIRESTONE Tire & Rubber Co. (Firestone), Akron 17, Ohio.
GALE products Div. (Buccaneer), Outboard Marine & Mfg. Co., Galesburg, Ill.
GAMBLE-SKOGMO, Inc. (Hiawatha), Minneapolis, Minn.
B. F. GOODRICH (See Flyer), Akron, Ohio.
GOODYEAR Tire & Rubber Co. (Sea Bee), Akron, Ohio.
JOHNSON Motors, Waukegan, Ill.
The LAUSON Co., New Holstein, Wisc.
MARTIN Motors, Div. of National Pressure Cooker Co., Eau Claire, Wisc.
METAL PRODUCTS Corp. (Flambeau), Milwaukee 12, Wisc.
MONTGOMERY WARD (Sea King), Chicago, Ill.
MUNCIE Gear Works, Inc. (Neptune), Muncie, Ind.
SCOTT-ATWATER Mfg. Co., Minneapolis 13, Minn.
SEARS, ROEBUCK & CO. (Elgin), Chicago, Ill.
SPIEGEL, Inc. (Brooklure), Chicago, Ill.
WEST BEND Aluminum Co. (Elgin), West Bend, Wisc.

### FOREIGN PASSENGER CARS

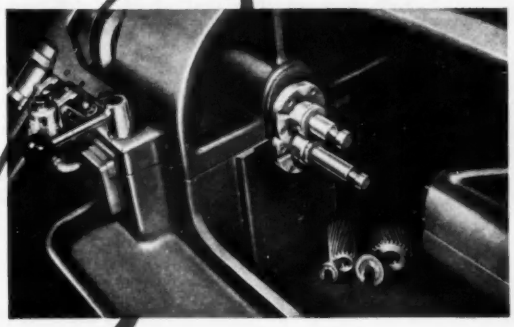
For details of their products see pages 154 and 155.

BRITISH

A. F. N. LTD. (Bristol, Frazer-Nash), Isleworth, Middlesex, England.
ALLARD Motor Co., Ltd., Clapham, London, S.W.4, England.
ALTA Car & Engineering Co. Ltd., Surbiton, Surrey, England.
ALVIS Ltd., Coventry, England.
ARMSTRONG SIDDELEY Motors, Ltd., Coventry, England.
ASTON MARTIN Ltd., Automobile Div., David Brown Tractors Group, Feltham, Middlesex, England.
AUSTIN Motor Co., Ltd., Longbridge, Birmingham, England.
BENTLEY Motors Ltd. (Rolls-Royce Ltd.), London W.1, England.
BRISTOL—See A.F.N. Ltd.
CITROEN Cars Ltd., Slough, Bucks, England.
DAIMLER Co. Ltd. (Daimler, Lanchester), Coventry, England.
FORD Motor Company, Ltd., Dagenham, Essex, England.
FRAZER-NASH—See N.F.N. Ltd.
HILLMAN Motor Car Co., Ltd. (Rootes Group Co.), Coventry, England.
H.R.G. Engineering Co. Ltd., Tolworth, Surrey, England.
HUMBER Limited (Rootes Group), Coventry, England.
JAGUAR Cars Ltd., Coventry, England.
JENSEN Motors Ltd., West Bromwich, Staffordshire, England.

(*Turn to page 376, please*)

# quick test screens out noisy transmission gears **before assembly**






A quick test on this new Red Ring Gear Sound Tester, equipped for air clamping, tells you immediately whether or not you have any noisy gears which will need additional processing before they are assembled into automatic transmissions.

The gear being tested is slipped onto the upper arbor and its pinion onto the arbor below, with a C-washer following each. Touching the air control lever locks both in place for the sound test which is run forward and reverse at various speeds and loading. Both gear and pinion are demounted just as easily after the test.

The gears are clamped by a predetermined spring pressure for positive safety under test. The compressed air is used to release the spring pressure for quick loading and unloading.

*WRITE FOR SPECIFIC DATA AND PRICES.*

SPUR AND HELICAL
GEAR SPECIALISTS
ORIGINATORS OF ROTARY SHAVING
AND ELLIPTOID TOOTH FORM



5601

**NATIONAL BROACH AND MACHINE CO.**

5600 ST. JEAN . . . . . DETROIT 13, MICHIGAN

WORLD'S LARGEST PRODUCER OF GEAR SHAVING EQUIPMENT

# *Redmond* MICROMOTORS



A four pole shaded-pole induction type electric motor, typical of Redmond's broad line of Micromotors and blowers.



# THE BIG NAME IN SMALL MOTORS




A special design precision built dynamotor mass produced by the Redmond Company for military requirements.

## . . . and Manufacturers of Special Equipment for Defense Requirements

Whether for civilian or defense requirements, the dynamic multi-plant Redmond enterprise is ready with the engineering experience and mass production ability to tackle tough problems. Year after year, this organization has been producing dependable Redmond Micromotors and blowers by the millions for leading manufacturers. And once again, the Redmond Company is ready to serve in the mass production of military equipment. When the call is for low-range fractional horsepower motors, blowers, electric windshield wipers, dynamotors, or for special defense equipment, check with Redmond . . . *the BIG name in Small Motors.*

**REDMOND COMPANY, INC.**, Owosso, Mich., U.S.A. **INDUCTION MOTOR SALES OFFICES:** *Eastern Area: 420 Lexington Ave., New York 17, N. Y.; Central Area: Owosso, Michigan; Midwest Area: 332 S. Michigan, Chicago 4, Ill.; Southwest Area: 1330 N. Industrial Blvd., Dallas, Texas; Western Area: (Redmond Company of Calif., Inc.) 1248 S. Boyle Ave., Los Angeles 23, Calif.* **SERIES MOTOR SALES OFFICES:** *Owosso, Mich.* **OVERSEAS SALES OFFICES:** *420 Lexington Ave., New York 17, N.Y., cable address, REDISINC - NEW YORK.*




**SAVE STOCKROOM TIME**

Requisitions to your stockroom for Pheoll Fasteners can be filled in less time. Boxes, kegs and packages are plainly marked with sizes clearly indicated for rapid identification. Pheoll's quality products handle easily, can be quickly counted or transferred to bins or assembly line trucks.

**REDUCE ASSEMBLY TIME**

Workmen gain time assembling with Pheoll screws, bolts, and nuts because they are accurately threaded, drive easily, seat rapidly, grip tighter—assuring stronger assemblies, easier inspection and less rejects.

**IMPROVE YOUR PRODUCT APPEARANCE**

The uniform quality of Pheoll Fasteners improves your product appearance. Precision slotted and finished heads, cleanly chamfered nuts, prevent marred surfaces and add to your product's sales appeal. Write for Pheoll literature and price list.

*Save Costs... Increase Profits with these Pheoll Fasteners*

ASK ABOUT PHEOLL Machine Screws† Machine Bolts Special Screws and Bolts Cap Screws Machine Screw Nuts Wood Screws† Thumb Screws Brass Washers Stove Bolts†

†Furnished in slotted and Phillips Recessed Head Types

Pheoll MANUFACTURING COMPANY
5700 ROOSEVELT ROAD
CHICAGO 50, ILLINOIS
SCREWS • BOLTS • NUTS
*Industrial Fasteners and Holding Devices*


## Directory of Manufacturers

*(Continued from page 372)*

JOWETT Cars Ltd., Idle, Bradford, England.
LAGONDA, Ltd. (Ravid Brown Tractor Group), Feltham, Middlesex, England.
LANCHESTER Motor Co., Ltd. (Daimler Co., Ltd.), Coventry, England.
LEA-FRANCIS Cars, Ltd., Coventry, England.
MORGAN Motor Co., Ltd., Malvern Link, Worcestershire, England.
M.G. Car Co. Ltd., Nuffield Exports Ltd., Abingdon-on-Thames, England.
MORRIS Motors, Ltd., Nuffield Exports Ltd., Cowley, Oxford, England.
RILEY (Coventry), Ltd., Nuffield Exports Ltd., Abingdon-on-Thames, Berkshire, England.
ROLLS-ROYCE, Ltd. (Rolls-Royce, Bentley), London W.1, England.
ROVER Company Ltd., Solihull, Birmingham, England.
SINGER Motors, Ltd., Small Heath, Birmingham, England.
STANDARD Motor Co., Ltd. (Standard, Triumph), Coventry, England.
SUNBEAM-TALBOT Ltd. (Rootes Group), Coventry, England.
TRIUMPH—See Standard Motor Co.
VAUXHILL Motors Ltd., Luton, Beds, England.
WOLSELEY Motors, Ltd. (Nuffield Exports Ltd), Cowley, Oxford, England.

CZECHOSLOVAKIAN

AERO-MINOR Usines Metallurgiques et de Constructions Mecaniques, Entreprise Nationale, Prague 11, CS.
Usine d'Automobiles SKODA, Entreprise Nationale, Mlada Baleslav, CS.
TATRA Entreprise Nationale, Koprivnice, CS.

FRENCH

FORD S.A.F., Poissy, S. & O., France.
S.A. des Anciens Etablissements HOTCH-KISS, St. Denis, Seine, France.
MATHIS S.A., Paris XVI, France.
S.A. des Anciens Etablissements PANHARD & Levassor, Paris 13, France.
S.A. des Automobiles PEUGEOT, Paris 8, France.
Regie Nationale des Usines RENAULT, Billancourt, Seine, France.
SIMCA Soc. Industrielle de Mecanique et Carrosserie Automobile, Nanterre, Seine, France.
Automobiles TALBOT-Darracq S.A., Suresnes, Seine, France.

GERMAN

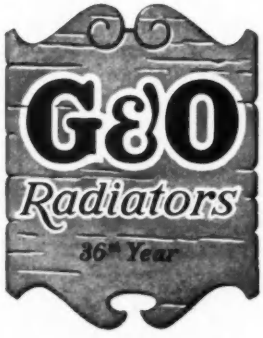
Autovelo-Werk BMW, Eisenach, Thuringen, Gr.
FORD-Werke AG, Cologne, Gr.
MERCEDES-BENZ — Daimler-Benz AG., Stuttgart-Unterturkheim, Gr.
Adam OPEL, Aktiengesellschaft, Russelsheim, Main, Gr.
VERTITAS Badische Automobil-Werke GmbH, Rostatt-Muggensturm, Gr.
VOLKSWAGENWERK GmbH, Wolfsburg, Gr.

ITALIAN

CISITALIA S.A., Corso Peschiera 251, Torino, Italy.
Scuderia FERRARI, 79 Viale Trento Trieste, Modena, Italy.
F.I.A.T. S.A., Corso IV Novembre 300, Torino, Italy.
LANCIA & Co., via Monginevro 99, Torino, Italy.
Officien Alfieri MASERATI S.A., Via Ciro Menotti 322, Modena, Italy.

*(Turn to page 378, please)*


BUY BONDS




AUTOMOTIVE and AVIATION
ENGINE COOLING RADIATORS
•
HEATERS
•
OIL COOLERS
•
THE G&O MANUFACTURING CO.
NEW HAVEN CONNECTICUT

# To help you get the most out of the steels you're getting

The rearmament program, even at this early stage, is packed with headaches for steel users. And that is true whether you are working on defense orders or on non-military requirements.

***If*** **you are operating under DO priority ratings you will of course get first call on critical steels. The steels you need for government defense orders will somehow be made available, but—you will still be faced with the necessity of quickly making the most out of those steels. For military needs are pressing and promise to become more so.**

***If*** **you are working on purely civilian goods, your problem is an even more difficult one. You will find it almost impossible to obtain certain steel items that are essential for defense. To fill the gap you will have to employ substitute steels. You'll need help not only in selecting the proper substitute steels, but in using them properly.**

We are prepared to assist you in either situation.

The steel engineers and metallurgists we have assigned to this important job of helping you use steel more *effectively* are the same men who were largely responsible for the development of National Emergency steels—one of the outstanding metallurgical accomplishments of World War II. These men can call upon the facilities of the most completely equipped steel research laboratories and the largest steel making plants in America. They can bring to the solution of your problems the very latest ideas and time-saving techniques in the working and treatment of steel. We urge you to draw freely upon this rich reservoir of experience.

UNITED STATES STEEL COMPANY, PITTSBURGH
COLUMBIA STEEL COMPANY, SAN FRANCISCO · TENNESSEE COAL, IRON & RAILROAD COMPANY, BIRMINGHAM
UNITED STATES STEEL SUPPLY COMPANY, WAREHOUSE DISTRIBUTORS, COAST-TO-COAST · UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS TRADE MARK

Carilloy Steels

ELECTRIC FURNACE OR OPEN HEARTH — COMPLETE PRODUCTION FACILITIES IN CHICAGO AND PITTSBURGH

1-306

UNITED STATES STEEL

**SPEED!**
**SERVICE!**
**SELECTION!**

MAKE *hi-shear*
THE FASTENER
CHOICE



**SPEED**

Six times as many shear pounds per man hour are gained using HI-SHEARS as compared to regular rivets or bolts.

**SERVICE**

HI-SHEARS are ideal fasteners for engine mounts, cannon and gun mounts and supporting structure where resistance to vibration must be met. Vibration resistance is inherent in the HI-SHEAR principle of swaging the collar into the pin end. HI-SHEARS serve as "tamper-proof" fasteners, to be serviced only by authorized personnel.

**SELECTION**

HI-SHEARS are being used in standard diameters of 1/8 through 3/8 inches and allow unlimited range in lengths. HI-SHEARS are in styles and materials adaptable to ANY high strength fastener problem.

U.S. and foreign patents—Trademark registered

THE *hi-shear* RIVET TOOL CO.
8924 BELLANCA AVENUE
LOS ANGELES, CALIF.

## Directory of Manufacturers

(*Continued from page 376*)

### BRITISH CIVIL AND MILITARY AIRCRAFT

For details of their products see pages 150-152.

AIRSPEED, Ltd., Christchurch, Hampshire, Eng.
ARMSTRONG WHITWORTH Aircraft, Sir W. G., Ltd., Baginton, nr. Coventry, Eng.
AUSTER Aircraft, Ltd., Rearsby, Leicester, Eng.
BLACKBURN & GENERAL Aircraft Ltd., Brough, East Yorks, Eng.
The BRISTOL AEROPLANE Co., Ltd., Filton House, Bristol, Eng.
The CHRISLEA Aircraft Co., Ltd., Clyst Honiton, Devon, Eng.
The De HAVILLAND Aircraft Co., Ltd., Hatfield, Hertfordshire, Eng.
HANDLEY PAGE, Ltd., Cricklewood, London, N.W.2, Eng.
HAWKER Aircraft Ltd., Kingston-Upon-Thames, Surrey, Eng.
PERCIVAL Aircraft Ltd., Bedfordshire, Eng.
A. V. ROE & CO., Ltd., Middleton, Manchester, Eng.
SAUNDERS-ROE, Ltd., Osborne, East Cowes, Isle of Wight, Eng.
SCOTTISH AVIATION, Ltd., Prestwick Airport, Ayrshire, Eng.
SHORT BROTHERS & Harland Ltd., Queens Island, Belfast, Eng.
VICKERS - ARMSTRONGS, Ltd., Weybridge, Surrey, Eng.
WESTLAND Aircraft Ltd., Yeovil, Eng.

## Publications Available

(*Continued from page 188*)

### A-74 Automotive Heating

Eaton Manufacturing Co.—The firm has just released Volume 12, No. 1, of the Eaton Engineering Forum which contains an article entitled, "Practical Consideration in Automotive Heating Design."

### A-75 Power Grinder

Chicago Wheel & Mfg. Co.—A new production hand tool called the "Hi-Power Grinder" is described in a four-page folder which has just been published.

### A-76 Rubber-Sealed Plugs

Cannon Electric Development Co.—Just issued is a four-page bulletin on a new line of "RS" hermetically-sealed plugs used largely on aircraft relays and other sealed components.

### A-77 Flexible Couplings

Link-Belt Co.—A new, four-page, illustrated folder No. 2363, on "RC" roller chain flexible shaft couplings has been published by the company. Engineering information for proper application includes dimensions, weights, service factors and horsepower ratings.

### A-78 Punches and Dies

Pratt & Whitney — Circular No. 533 on punches, dies and miscellaneous tools, complete with specifications and prices, is offered by the company.

### A-79 Finishes, Rust Resistant

Parker Rust Proof Co.—The February issue of *The Parkerizer*, which gives some interesting uses of the firm's product for automotive applications, has just come off the press.

### A-80 Protective Coatings

Midland Industrial Finishes Co.—A new four-page folder describes and illustrates the varied uses of Sicon, the company's heat resistant silicone finish.

### A-81 Circular Milling Attachment

Cincinnati Milling Machine Co.—Just released is a leaflet, No. M-1729, that describes and illustrates the firm's 12-in. circular milling attachments.

### A-82 Centrifugal Steel Casting Data

Lebanon Steel Foundry — Technical literature incorporating detailed information on modern techniques of centrifugal casting in permanent molds for production of cylindrical shapes in a variety of alloy steels is now being made available.

### A-83 End Finishing Machines

Pines Engineering Co.—A new four-page two-color bulletin, now available to metal working plants, illustrates bench-type end-finishing machines.

### A-84 Couplings

The Falk Corp.—The release of new literature illustrating and describing the application of speed reducers, couplings, gears and Motoreducers in specific industries has been announced.

### A-85 Materials Handling Equipment

Modern Equipment Co., Inc.—A new and complete catalog on materials handling equipment covering the firm's entire line of handling equipment is now offered.

### A-86 Paint, Heat Resistant

Speco, Inc.—A product information bulletin on Heat-Rem H-170, new extra high heat resistant aluminum paint for temperatures up to 1700 F, is announced by the company.

# SPECIAL MANUFACTURING





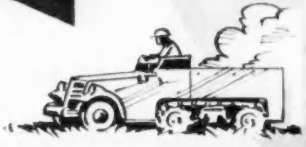


*Custom Grinding*

*At Your Service · 42 Years Experience*

*Constant Velocity*
**UNIVERSAL JOINTS**





**The GEAR GRINDING MACHINE CO.**
3901 CHRISTOPHER AVE. DETROIT 11, MICHIGAN

# *Do you know...*

## ACME'S XN TOGGLE DESIGN IS EXCLUSIVE?



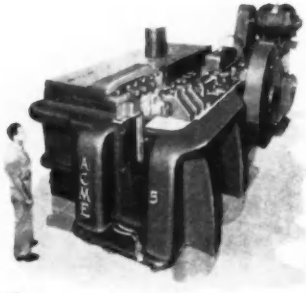
*Double Toggle Cluster for 2" and larger machines.*

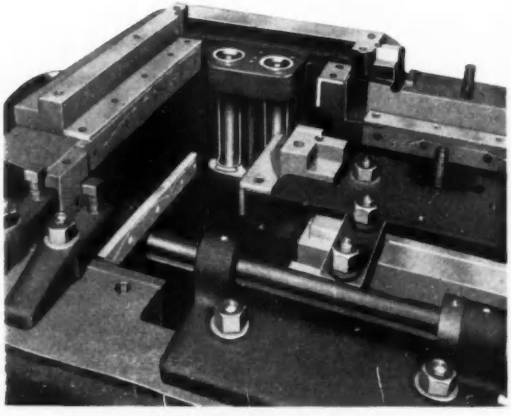
● Among the outstanding features of the Acme XN Forging Machine, none is more important than the Acme Toggle design and construction.

This solid Toggle link construction, exclusive to Acme XN Forging Machines, has large continuous surface areas which reduce pressures per square inch, reflecting lower maintenance cost. Acme design eliminates shoulder wear on pins and bushings common to the hinged or laced type toggles.

The Toggle Links rigidly support the gripping die with a continuous bearing throughout the entire length and height, insuring uniform gripping in all parts of dies and resisting any tendency for the forging dies to breathe—the common cause of excessive flash, swollen and eccentric forgings.

The powerful action of the Acme Toggle Mechanism permits numerous operations, such as squeezing, piercing, shearing, as well as actual forging operations to be performed between the forging dies.



*Die Slide Pocket for Double Toggle 2" and larger machines.*

HILL ACME INDUSTRY

# THE HILL ACME COMPANY

**ACME MACHINERY DIVISION** • **1209 W. 65th St., Cleveland 2, Ohio**
ESTABLISHED 1882

"ACME" FORGING • THREADING • TAPPING MACHINES • ALSO MANUFACTURERS OF "HILL" GRINDING AND POLISHING MACHINES
HYDRAULIC SURFACE GRINDERS • "CANTON" ALLIGATOR SHEARS • PORTABLE FLOOR CRANES • "CLEVELAND" KNIVES • SHEAR BLADES

Reprints from this or other Logbook pages are available for your files. Request them from our Redwood City, California office

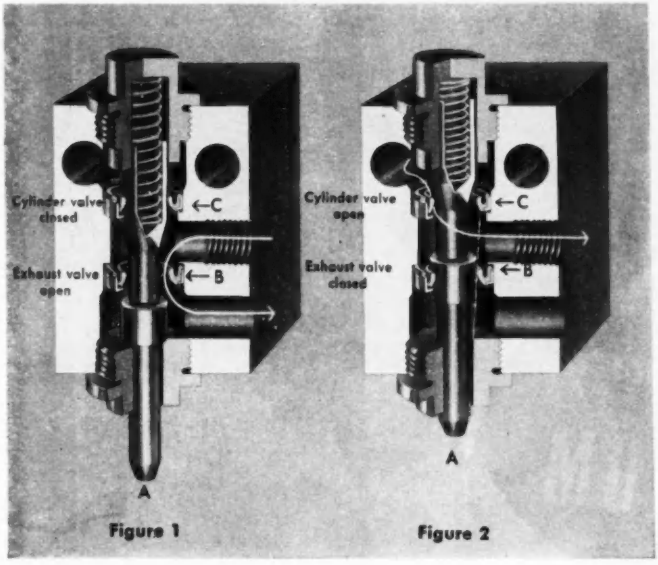



Figure 1 Figure 2

# National Syntech* Oil Seals used successfully as air valves in unusual steering mechanism

In the pneumatic steering manifold assembly used on the Le Tourneau Earth Mover, oil seals are successfully employed as air valves. These seals withhold air pressures of 90 to 130 p.s.i. There is no lubrication whatsoever and operating temperatures frequently reach 180° and 200° F.

The sectional drawing (Figure 1) shows one of these air valve units with exhaust valve open and cylinder valve closed. (Figure 2) shows exhaust valve closed and cylinder valve open. The reciprocating piston shaft (A) is shaped to provide two valve seats which establish contact with two oil seals (B & C) forming a double acting valve. The piston is actuated by mechanical means.

To solve this unique problem, National Oil Seal engineers developed an exceptionally sturdy springless seal (Figure 3). This special design employs an extra thick specially compounded syntech (synthetic rubber) sealing member which is precision molded and bonded to a steel-truss frame. Spring tensioning is unnecessary since air pressure forces perfect contact between sealing member and valve seats. Two seals are used in each piston of the four-piston manifold. In recent tests these seals are performing perfectly after valves have been actuated some 250,000 times.

In the above application, a special National Oil Seal design was required to meet unusual conditions. But in many cases—particularly when a relatively small production run is scheduled—manufacturers can take advantage of stock oil seal designs. In such cases there are no tooling costs and no lost time. National Oil Seals are available in thousands of stock sizes and shapes, and tools and dies for many thousands more are maintained. Whether you need a special design or can employ a stock number, National Oil Seal engineers are ready to help you.

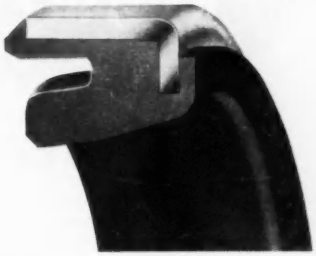


**Figure 3**
National Syntech springless type seal

*"Let Your Decision be Based on Precision"*

NATIONAL OIL AND FLUID SEALS

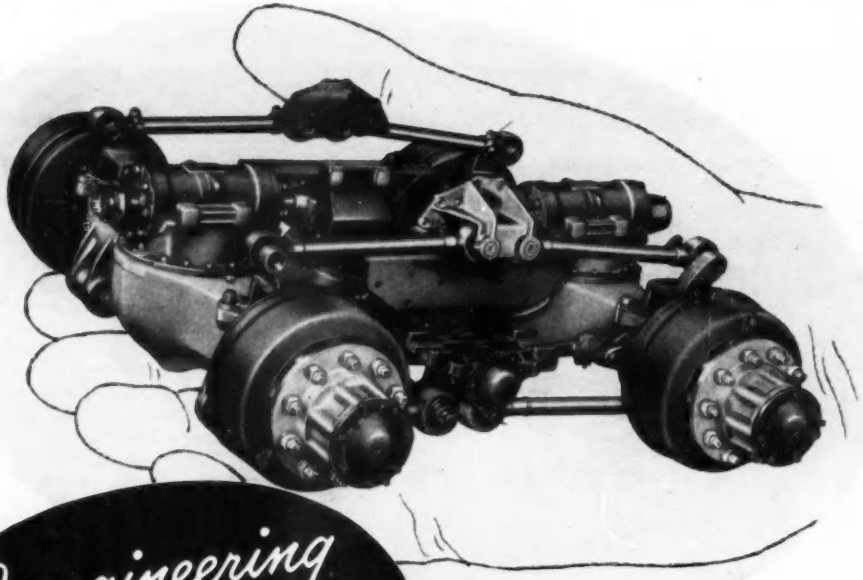
**NATIONAL MOTOR BEARING CO., INC.**

**General Offices:** Redwood City, California
**Plants:** Redwood City, Calif.; Downey (Los Angeles County), Calif.; Van Wert, Ohio

2186

** Trade Mark Registered*

CALL IN A NATIONAL ENGINEER FOR RECOMMENDATIONS



*Imagineering* WITH ALUMINUM

## trimmed 440 lbs. off this axle unit

What's a few hundred pounds extra payload capacity worth to a fleet owner? Plenty . . . over the life of a truck! That's why Timken-Detroit engineers decided to develop an aluminum rear axle.

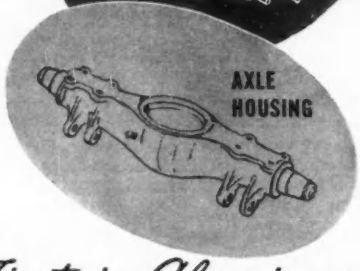
They teamed up with Alcoa engineers in an exhaustive research and road test program. "Shake-down" results proved the new axles, with aluminum housings, hubs and brake shoes were fully as strong as the standard axle—yet weighed 440 lbs. less. Besides adding payload capacity, reduced unsprung weight was found to lengthen tire life, improve riding qualities.

Military needs now limit the amount of aluminum we can supply. But perhaps our technical men and development facilities can help you *imagineer with aluminum* for future design improvements. Call your nearby Alcoa sales office. Or write ALUMINUM COMPANY OF AMERICA, 1841C Gulf Building, Pittsburgh 19, Pennsylvania.





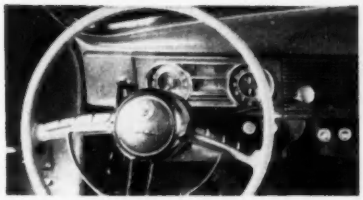


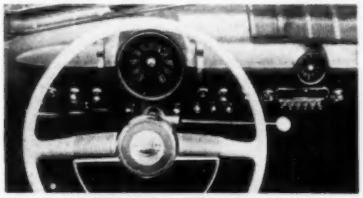


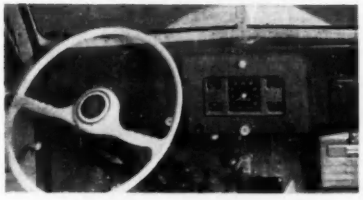

ALCOA

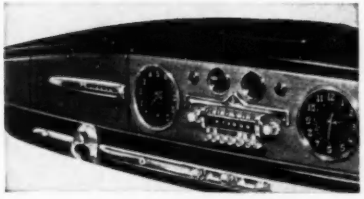
ALCOA ALUMINUM

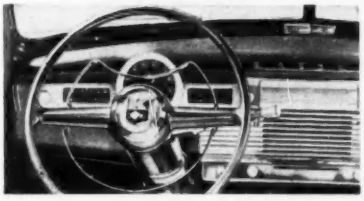
*First in Aluminum*











# FIVE of the REASONS

for the Superiority of

KS **DASHBOARD INSTRUMENTS**

**King-Seeley electric dashboard instruments have long been superior in the automotive field because:**

1. Their performance is always reliable—gives the car owner no cause for a gripe.

2. All connections are made with standard electric wire, thus they are easily installed by production line methods.

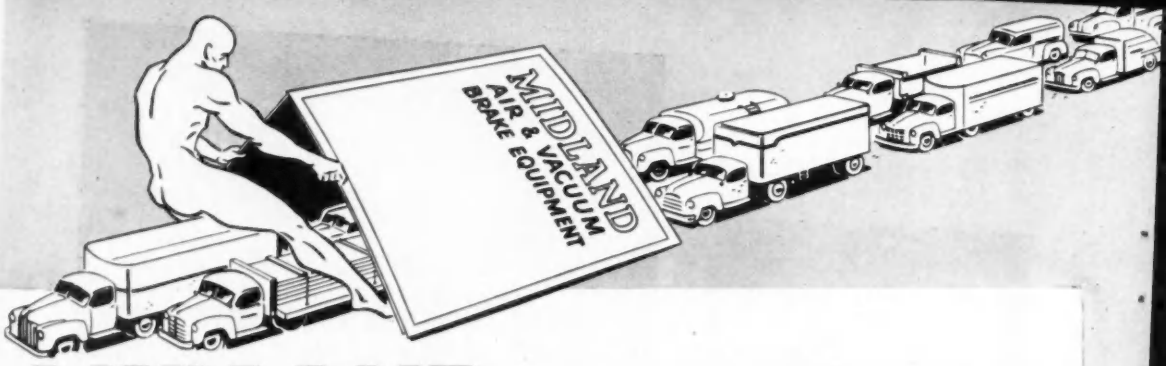
3. No tubing is needed. Wires are used instead. Consequently the danger and annoyance of broken tubes are eliminated. No tubing holes in the dash. Engine noises cannot be telegraphed to the dash as they are by tubing.

4. The vehicle manufacturer can always depend on strict adherence to the delivery schedules of King-Seeley instruments.

5. King-Seeley research engineers are constantly searching for a way to improve the effectiveness, dependability, and economy of these instruments.

**In the last seventeen years 50,000,000 K-S instruments have been installed in automobiles and trucks. For more detailed information, write to King-Seeley or ask for a representative to call.**

**KING-SEELEY CORPORATION**
**ANN ARBOR, MICHIGAN**
*PLANTS AT ANN ARBOR, SCIO, AND YPSILANTI*




# MIDLAND Power Brakes

## *Cover Every Type of*

## TRUCK • TRACTOR • BUS • TRAILER

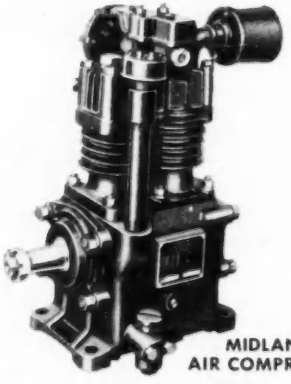
Midland Air and Vacuum Power Brakes are so advanced in designing and engineering that they have achieved entirely new standards of power brake operation. Their superiority has been convincingly proved in operation on thousands of trucks —on all kinds of highways—under all conditions.

Midland Power Brakes are ruggedly constructed—to give better service—greater safety—longer life. Available in packaged kits to meet your needs. Backed by Midland's famous "Factory Rebuilt Exchange Plan."

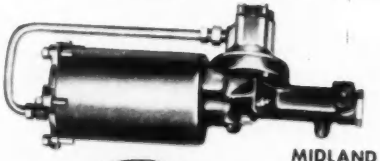
**COMPRESSOR . . . available in 7.3 and 10 cu. ft. capacities. Powerful and efficient. Provide safe, sure control in Midland Air Brakes.**

**AIR HY-POWER . . . air-over-hydraulic in its simplest form. Offers numerous advantages over any other braking system of this type. Lightning fast brake control. Fewer parts. Less weight. New simplicity and compactness.**

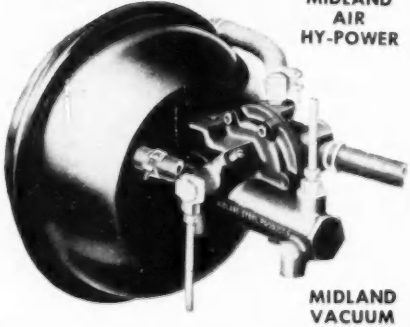
**VACUUM HY-POWER . . . a remarkably efficient, economical braking system. Proved in years of service. Direct applied power. Sealed against all weather conditions.**



MIDLAND
AIR COMPRESSOR



MIDLAND
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MIDLAND
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HY-POWER

*The* **MIDLAND**
**STEEL PRODUCTS COMPANY**
6660 Mt. Elliott Ave. • Detroit 11, Mich.
Export Department: 38 Pearl Street, New York, N. Y.



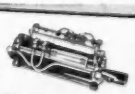
Air and Vacuum
POWER BRAKES



World's Largest Manufacturer of
AUTOMOBILE and TRUCK FRAMES



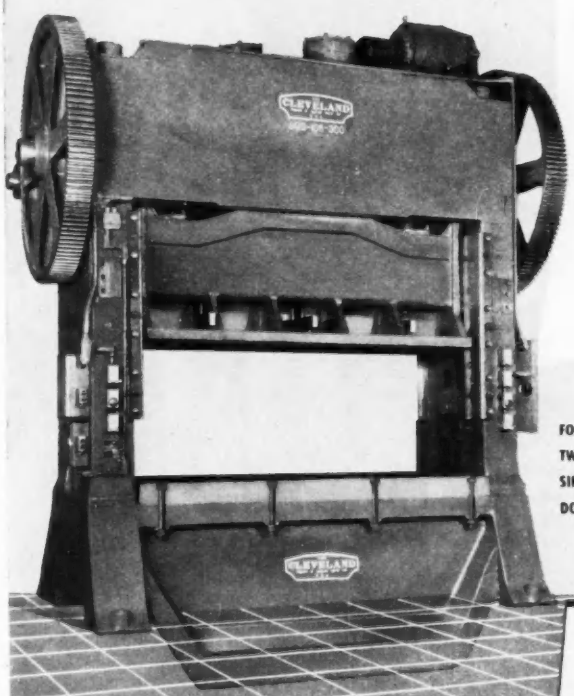
Air and
Electro-Pneumatic
DOOR CONTROLS



# More Stampings at lower cost with the right CLEVELAND

Every Cleveland Press is designed and constructed to give top production at the lowest possible operating cost. Therefore you can expect uninterrupted high speed production because rugged construction minimizes vibration and deflection under load. The outstanding (patented) Cleveland Drum Type Clutch virtually eliminates clutch maintenance.

For peak efficiency select the right Cleveland for your particular requirements. Cleveland offers a wide selection of eleven types of power presses. Each is furnished in a wide range of sizes and capacities. Take advantage of our engineering service; our recommendations will not be restricted by limitations of type or size. Contact us today, for this free advisory service. A-5011



Cleveland Straight-Sided Double Crank Press double-geared, equipped with air friction clutch and 2 station electrical control.

| | | |
|---|---|---|
| FOUR POINT | | TRIMMING |
| TWO POINT | S.S. DOUBLE CRANK | S.S. SINGLE CRANK |
| SINGLE POINT | OPEN BACK GAP | HORNING |
| DOUBLE ACTION TOGGLE | KNUCKLE JOINT | INCLINABLE |

| | |
|---|---|
| Stroke of Slide | 16" |
| Adjustment of Slide | 6" |
| Shut Height | 30" |
| Base of Slide | 44" x 102" |
| Bed Area | 50" x 108" |
| Strokes per minute | 12 |
| Capacity | 300 tons |



THE CLEVELAND PUNCH & SHEAR WORKS CO. U.S.A.

Established 1880

PUNCHING TOOLS & DIES

FABRICATING TOOLS

POWER PRESSES

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# Specify *American* Broaches

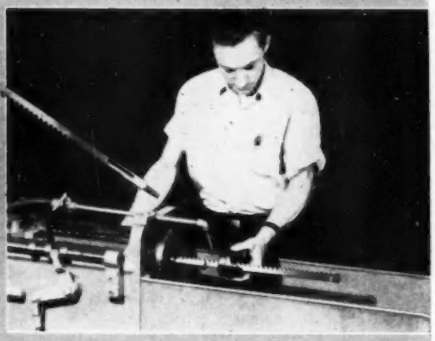
**For the best results use American broaches —whether you broach keyways or drive gears.**

## BROACHING MOTOR COUPLINGS WITH AN AMERICAN STANDARD KEYWAY BROACH

A simple operation yet requiring accuracy is the production broaching of keyways in motor couplings.

In this tooling set up the operator is not required to remove the American keyway broach from the pull head as he threads the part over the broach onto a work horn. High production is obtained as a part is loaded on each return stroke.

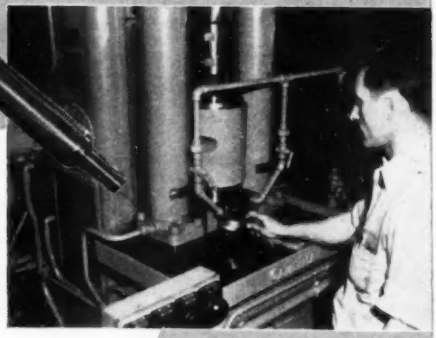
Whether your problem is keyways or complicated involute splines, American broach engineers can design the proper broach to produce parts to your requirements.



## FINISH BROACHING AUTOMATIC TRANSMISSION DRIVE GEARS

The prime requirement of automatic gears is silence in operation and long life. American broaches are used to finish the drive gear's helical involute teeth on the American machine shown to the right. No further internal machining is necessary on these gears which must pass rigid tests before final assembly.

Let American quote on your broaching requirements — machines, broaches and fixtures. Send a part print and full information.



## COMPLETE BROACHING INFORMATION

*Over 5,000 copies of Catalog 450 have been distributed . . . get your copy now of this informative data book on American Broaches. Photographs . . . drawings . . . charts and case histories of broaching tools. Write today for your copy!*



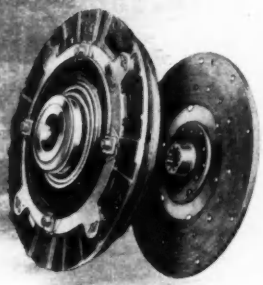
**American BROACH & MACHINE CO.**

A DIVISION OF SUNDSTRAND MACHINE TOOL CO.

ANN ARBOR, MICHIGAN

**See *American* First — for the Best in Broaching Tools, Broaching Machines, Special Machinery**





Lipe Multi-Lever Clutches sure can "take it". And here's why: *There's only one spring.* Spring pressure is *evenly distributed* around the pressure plate by 20 pressure-equalizing levers. There's no cocking of the plate—no grab—no shock—no jerk. Less maintenance—more hours on the road.

•

**Write for Service Manual and complete data on genuine Lipe parts stocked in principal cities.**

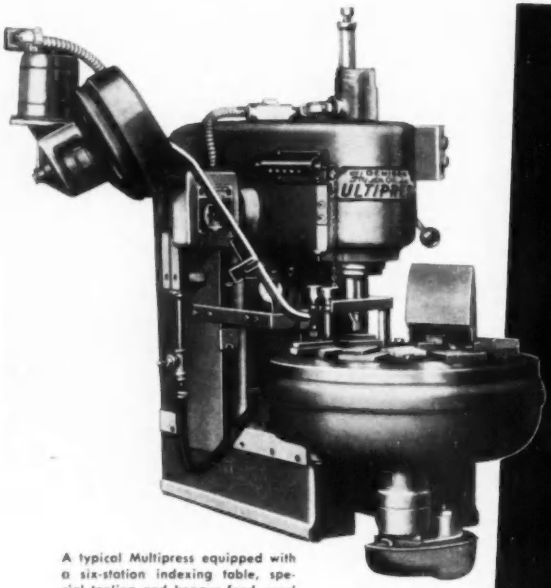
*Mail inquiry for radial and thrust roller bearings to our subsidiary, Rollway Bearing Co., Inc. Syracuse 1, N. Y.*

LIPE ROLLWAY

**Lipe-ROLLWAY CORPORATION**

Manufacturers of Automotive Clutches and Machine Tools

Syracuse 1, N. Y.



A typical Multipress equipped with a six-station indexing table, special tooling and hopper feed, used to rivet electrical contacts on brass and spring steel contact arms.

# MULTIPRESS is the answer to FASTER BETTER SAFER PRODUCTION for hundreds of operations

## With Accurate Pressure Control Plus Wide-Range Adjustability, Multipress Offers Unique Production Advantages

SMOOTH, ACCURATE, OIL-HYDRAULIC ACTION, specially engineered for production speed and efficiency, plus quick, easy, wide-range adjustability! That's what enables Multipress to make cost-cutting news on so many different types of jobs!

More than *six-thousand Multipresses* now offer working proof of this ability to speed production, improve quality, reduce rejects and scrap losses, increase safety, cut worker fatigue, reduce die wear, and slash costs.

A quick review of a few Multipress features will show why!

*Pressure is infinitely adjustable, within the full pressure range of the press.*

*Pressing and approach speeds can be adjusted separately, to combine rapid traverse with controlled working speeds.*

*Ram stroke can be preset for either distance or pressure limits.*

*Controls for time delay, or ram dwell, and many sequence requirements are available.*

*Exclusive Multipress Vibratory Ram Action—ram effort applied in a series of short, rapid, full-tonnage strokes in each cycle—is also available.*

*Multipress can be equipped for either manual or automatic ram control, with dual levers or push buttons for extra safety.*

*Highly compact Multipress design requires minimum floor space and head room . . . gives maximum advantage in locating parts bins, tote boxes, hopper feeds, conveyor equipment, and other accessories.*

*Indexing tables and dial feed tables for feeding parts to the press ram automatically, are standard Multipress accessories. Others include harmonic stock feed, straightening fixtures, pelleting equipment, and a foil marking attachment.*

• • • •

Multipress is tailored to individual production needs, in eight different frame sizes, with capacities from 1 ton up to the 50-ton range. For more information, write The Denison Engineering Company, 1212 Dublin Road, Columbus 16, Ohio, U. S. A.

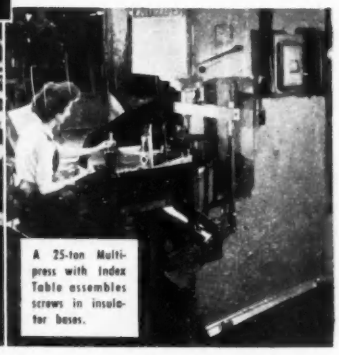
DENISON HydrOILics



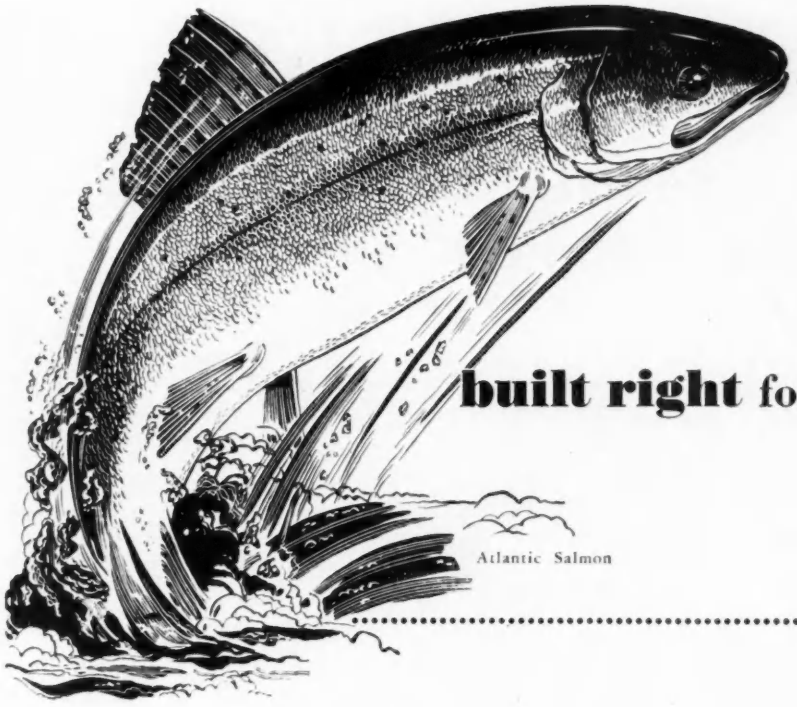
8-ton Multipress used by famous radio maker in producing speaker assemblies.



A 4-ton Multipress with Index Table broaches serrations on small cams.



A 25-ton Multipress with Index Table assembles screws in insulator bases.

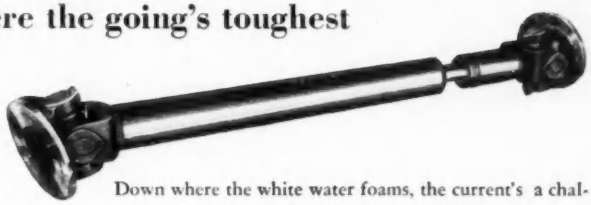


**built right** for rapids

Atlantic Salmon

# **built right** for dependable power transmission

## where the going's toughest



Down where the white water foams, the current's a challenge to the Salmon — for he's built with a fighting heart that's *right* for the rapids. • Out on the highways — in the strip mines — on the tough jobs — you'll find Blood Brothers Universal Joints and Drive Line Assemblies are *built right too.* They're getting the power through under brutal, shock-load conditions . . . on many of the toughest trucking assignments.

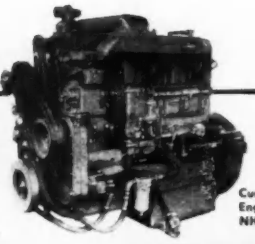
When you face propeller-shaft problems, call Blood Brothers for engineering consultation.

**BLOOD BROTHERS machine co.** ALLEGAN, MICHIGAN

Division of Standard Steel Spring Company . . . Chicago Office: 122 S. Michigan

# At Cummins Engine Company

# MAGNAFLUX* INSPECTION SAVES $600 — $800 a Week



Cummins Diesel Engine — Model NHRBS — 600 — 300 HP

*and* INSURES dependable engine quality!



Magnaflux inspection of injector bodies at CUMMINS ENGINE COMPANY, INC., Columbus, Indiana



Inspecting rough forged connecting rods for Magnaglo fluorescent indications under black light.

Cummins Engine Company Diesels are recognized for dependable service in the field. This they insure in manufacture by fully effective Magnaflux-Magnaglo* inspection of critical parts.

By using Magnaglo to detect defective forgings and castings *in the rough*, Cummins Engine Company eliminates useless finishing operations. Direct savings in machining time, equipment and labor are currently averaging $600 to $800 a week—with production capacity increased in similar ratio.

Forgings and castings to be inspected are hand-loaded onto the Magnaflux unit's endless conveyor and automatically processed with Magnaglo. At the inspection station pertinent defects are indicated under the black light by glowing fluorescent lines. Depending upon the kind of parts in process, up to 1200 pieces per hour can be inspected.

Cummins' operation may not be typical of your problem but Magnaflux has solutions for most industries. Invite an experienced Magnaflux engineer to discuss them with you.

** Magnaflux and Magnaglo are U. S. registered trademarks of Magnaflux Corporation*

MAGNAFLUX CORPORATION

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**MAGNAFLUX CORPORATION**

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**Lusterless, semi-gloss & gloss**
**lacquers, enamels, undercoats & thinners**
**to meet virtually all U.S. Gov't. Specifications**

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**FOR BOOKLET**

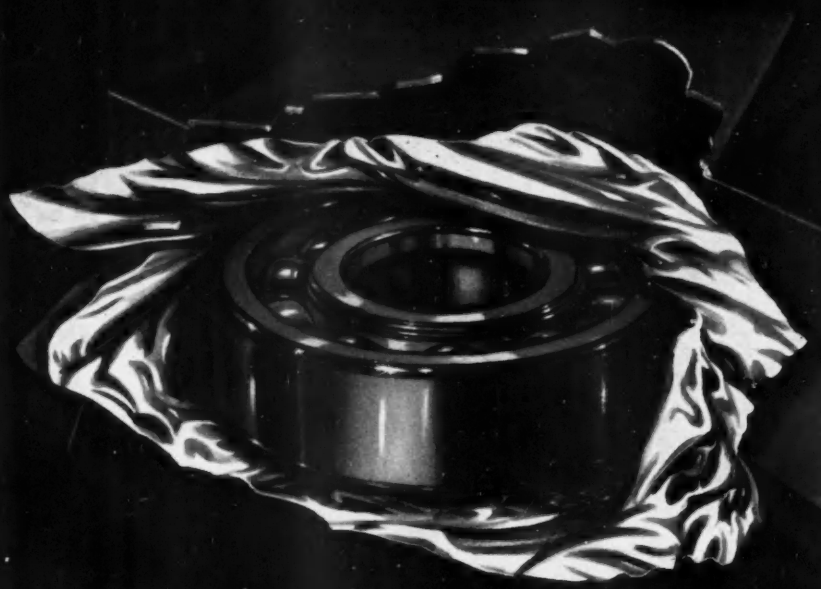



*Rinshed-Mason Co.*

5935 MILFORD AVE.
DETROIT 10, MICH.

R·M
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1244 N. LEMON ST.
ANAHEIM, CALIF.



SPARKLING

## ALCOA FOIL keeps 'em rolling... Fast!

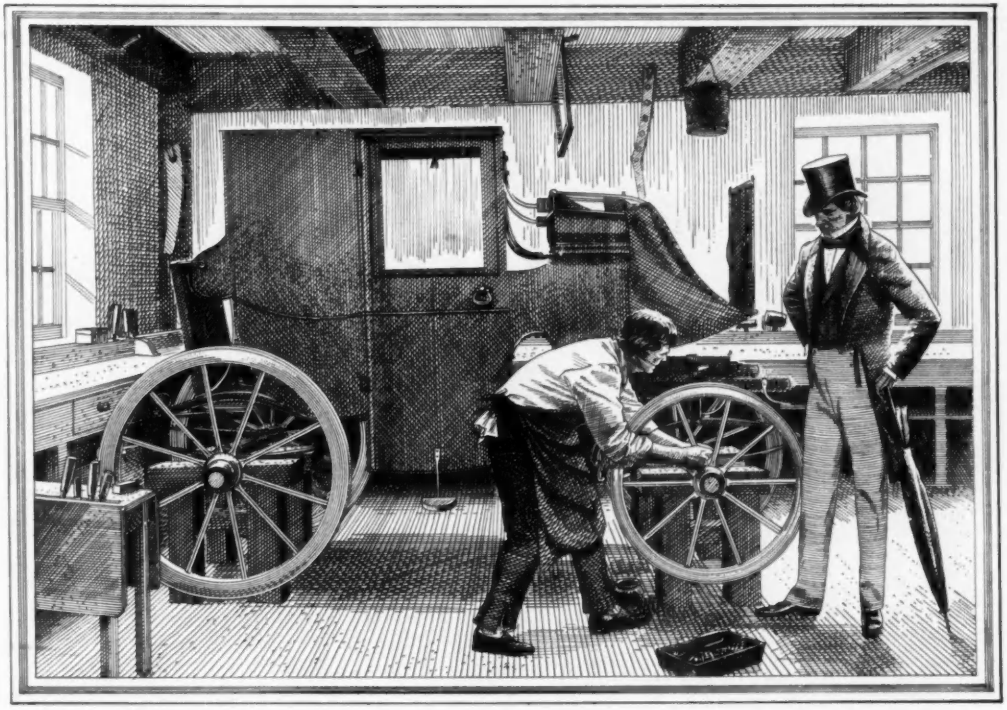
Drop this precision bearing into an inner foil-kraft bag . . . heat seal it . . . that's *all.* You've protected it against rust and dirt. When and where the bag and outer carton are opened . . . even years later . . . the bearing will be factory perfect. Ready for immediate use.

Experts in automotive packaging pioneered many aluminum foil uses. One of the leading companies went over to foil for better protection—and was able to replace a complicated six-step operation with the simple foil-kraft bag and carton you see above!

If your product needs special protection look into the many possible applications and advantages of Alcoa Aluminum Foil. Let us send you the names of reliable packaging firms, qualified to give you information on current material availabilities as well as capable assistance with your present or future planning.

Write to: Aluminum Company of America, 1765C Gulf Building, Pittsburgh 19, Pennsylvania.

ALCOA



# Craftsmanship.... *1951 Style*



In 1838, Lord Brougham called on one of England's greatest coachmakers to construct a new style of coach invented by his lordship . . . each part to be handmade with craftsmanlike care, even to the carriage bolts.

Especial attention was paid to these bolts that held the other parts together. For it was realized that the performance of the assembled product depended largely on the performance of its fasteners.

Quality fasteners are equally important today to quality products such as modern motor cars. But, 1951 craftsmanship is more easily achieved . . . through the aid of *specialists*, like the RB&W worker in the small illustration. He specializes in fasteners alone, devoting a craftsman's skill to producing bolts, nuts, screws and rivets of uniform accuracy, dependability and physical properties.

Backing up his experience is RB&W's continuous research, development work, investment in large expansion and improvement programs . . . 106 years of experience in making the finest fasteners.

In the age-old tradition of craftsmanship, Russell, Burdsall & Ward gives industry the quality that *makes strong the things that make America strong.*

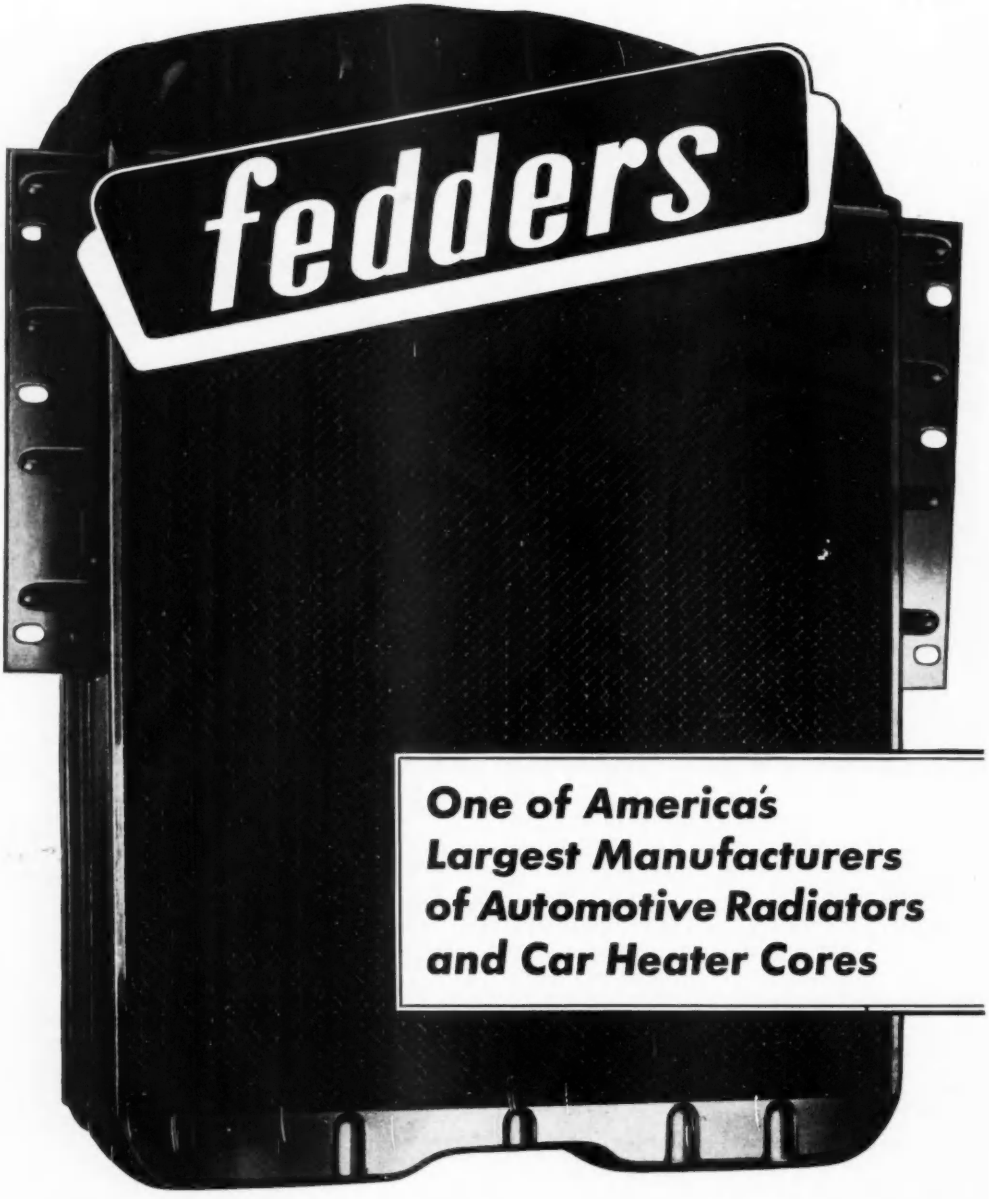


**RUSSELL, BURDSALL & WARD BOLT AND NUT COMPANY**

**RB&W** *the complete quality line*

106 YEARS MAKING STRONG
THE THINGS
THAT MAKE AMERICA STRONG

***Plants at:*** **PORT CHESTER, N. Y., CORAOPOLIS, PA., ROCK FALLS, ILL., LOS ANGELES, CALIF.** ***Additional sales offices at:*** **PHILADELPHIA, DETROIT, CHICAGO, CHATTANOOGA, DALLAS, OAKLAND.** ***Sales Agents at:*** **PORTLAND, SEATTLE.** ***Distributors from coast to coast.***




**One of America's Largest Manufacturers of Automotive Radiators and Car Heater Cores**

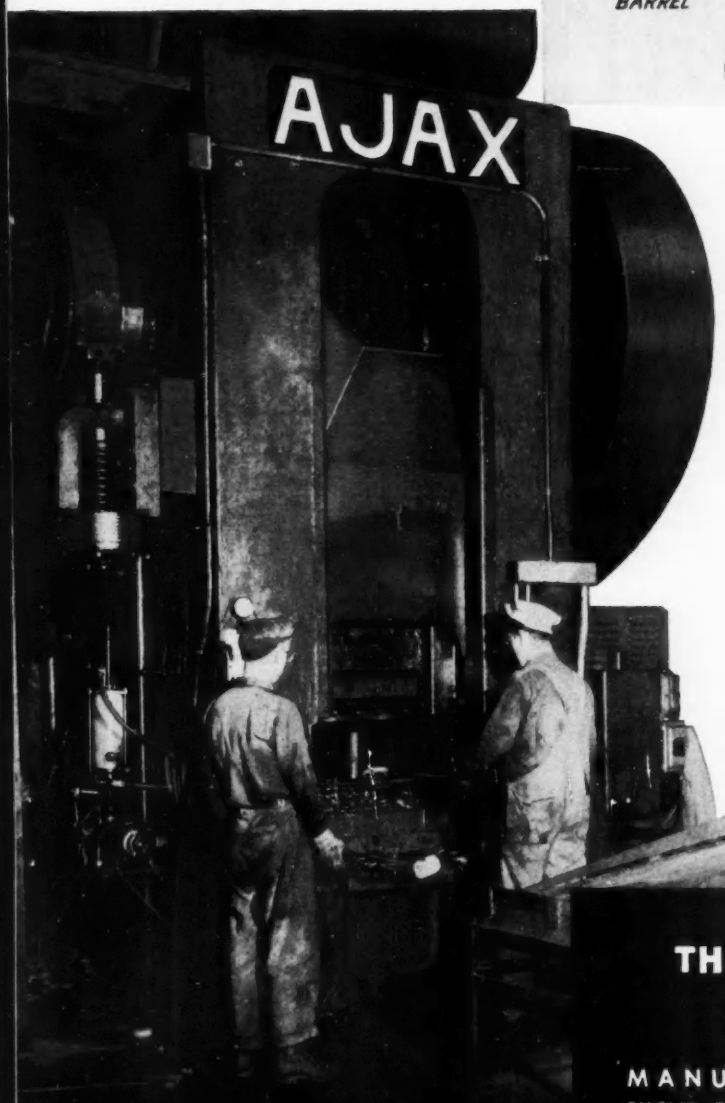
**FEDDERS-QUIGAN CORPORATION**
**BUFFALO 7, NEW YORK**

# PRESS FORGE GEAR BLANKS

*better! faster! cheaper!*




*Dies and Forging Operation for Tractor Gear Blank*




*Forging Tractor Part on AJAX FORGING PRESS at International Harvester Company, Louisville, Kentucky, Works.*

The need of high production efficiency in competitive industry today emphasizes the importance of the economies gained through Press Forging of Gear Blanks, as well as many other types of multi-stage forgings. The forgings are better because they have a high degree of uniformity of size and added strength due to the hot forging process shaping the grain flow so that the finished gear has a stronger structure. Forging is faster, as the quick air clutch controlled press ram achieves so much from a single stroke. And press forging is cheaper through saving in manpower both in forging and in subsequent finishing operations. There is still further saving in metal due to a minimum of flash and in minimum die replacement cost.

*Write for Bulletin 75-B*

THE **Ajax** MANUFACTURING COMPANY

EUCLID BRANCH P. O. CLEVELAND 17, OHIO

110 S. DEARBORN ST. CHICAGO 3, ILLINOIS

DEWART BUILDING NEW LONDON, CONN.



# Aircraft Quality Steels

The steels used in highly stressed aircraft parts are unique when it comes to painstaking methods of manufacture and inspection.

In order to meet all of the stringent requirements for these highly specialized steels, Bethlehem follows rigid metallurgical and production procedures that include such steps as:

- Careful selection of raw materials
- Exacting melting practice
- Extra discards
- Controlled cooling of billets
- Precision heating and rolling

In addition to careful inspections at every stage of manufacture, these steels also undergo:

- Magnetic-particle inspection
- Macro-etch testing
- Grain-size testing
- Hardenability and mechanical testing

Only after a heat of steel has been made to these exacting standards and has satisfactorily passed these inspections is it classified by Bethlehem as Aircraft Quality.

If you need information on applications and properties of Aircraft-Quality steels, get in touch with the nearest Bethlehem sales office.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation

Export Distributor: Bethlehem Steel Export Corporation

**BETHLEHEM ALLOY STEELS**

BETHLEHEM STEEL

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SNYDER TOOL & ENGINEERING CO.

3400 E. LAFAYETTE, DETROIT 7, MICHIGAN

# *Assembly perfection*



Assemblies to be perfect must be form fitting, well designed and accurately produced.

Experienced workmanship, careful inspection, and prompt delivery are particularly essential to give this service to manufacturers who insist on quality at a reasonable cost.

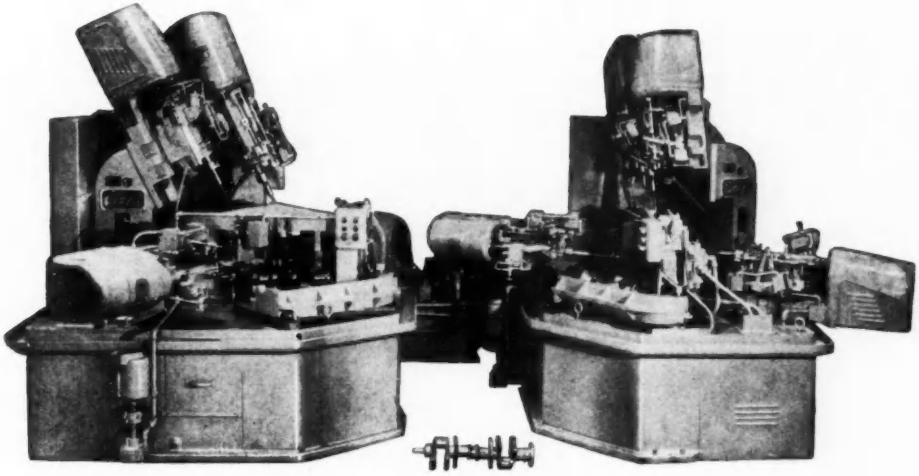
O A L CO.

## O. L. ANDERSON CO. Inc.

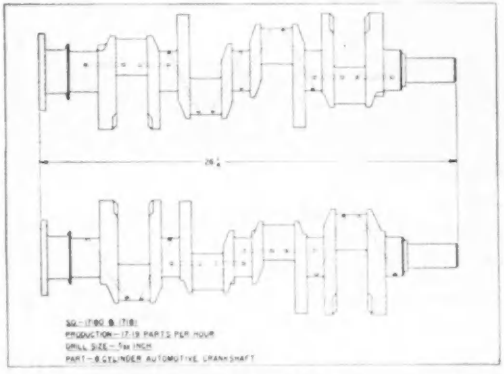
**MANUFACTURERS OF**

*FUEL TANKS AND SHEET METAL ASSEMBLIES for the AUTOMOTIVE INDUSTRY*

**1347-87 EAST FORT STREET • DETROIT 7, MICHIGAN**



# Avey CRANKSHAFT DEEP HOLE DRILLING MACHINE



***Fixtures***—The fixtures were hydraulic automatic clamping and were supplied with swinging cradle for loading.
***Material***—Drop Forged Steel.
***Production***—17 to 19 completed crankshafts per hour.

***MACHINE S. O. No. 17180 and No. 17181***

Consisted of four No. 1 *Avey-draulic* (hydraulic) Deep Hole Drilling Units mounted and aligned at suitable angles for drilling oil holes in crankshafts. Units were equipped with torque-matic control and had 12″ ram travel. A fine feed attachment was provided for starting the drill as the holes were off center. This fine feed stroke was adjustable up to ½″ in depth, after which the normal feed rate is resumed. The coolant system was built in the fabricated base; however, the hydraulic power source was a separate unit. A pair of machines are required to drill all the oil holes in an eight-cylinder crankshaft. The machines conformed to Automotive Standards.

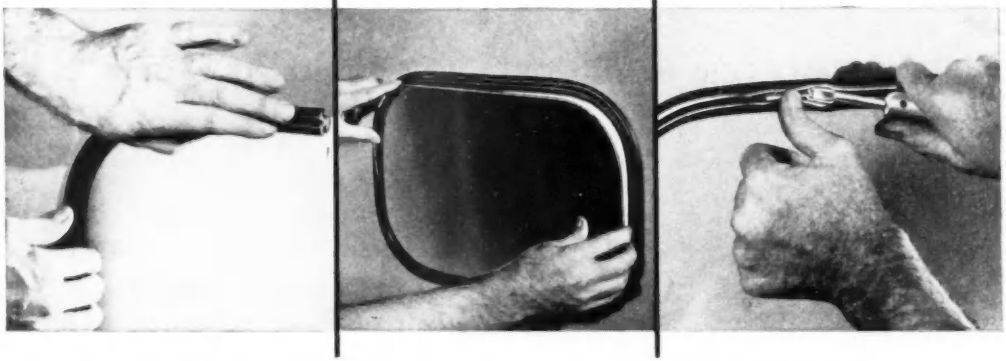
***Replace*** your obsolete Drilling and Tapping Equipment with **Avey** Special Machines. Write ***today!***

**Avey DRILLING MACHINE CO.**
CINCINNATI 1, OHIO

# As simple as lighting a cigarette



**1.** Set Inland Strip in body panel. **2.** Set glass in Inland Strip. **3.** Zip filler strip into locking channel.

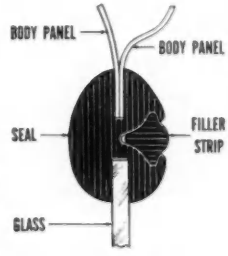


Look at the pictures above. See what a fast, simple, low-cost job it is to weatherproof windshields and fixed windows with Inland Self-Sealing Weather Strip. One man does it . . . in a fraction of the time required for ordinary sealing. The job costs much less . . . cuts production cost on any vehicle.

Inland Self-Sealing Weather Strip means *permanent* and *complete* leakproofing too. It employs the resilience of rubber, permanently compressed, to effect the seal. It can't leak, in any weather and regardless of temperature changes.

Design and build your vehicles to use Inland Self-Sealing Weather Strip. Make sure of permanent leakproofing and lower glass-replacement cost . . . greater user satisfaction.

**INLAND MANUFACTURING DIVISION • General Motors Corporation, Dayton, Ohio**




***Easy, Fast, Economical!***

The seal goes into the body panel, the glass into the seal, and the filler strip into the locking channel. That's all . . . a fast, low-cost, one-man job . . . done once . . . for permanent weatherproofing!

INLAND MANUFACTURING

## *Self-Sealing Weather Strip*

*(PATENTED)*



EXTRUSIONS AND ROLLED SHAPES







REFRIGERATION AND HEATING



PLUMBING FIXTURES

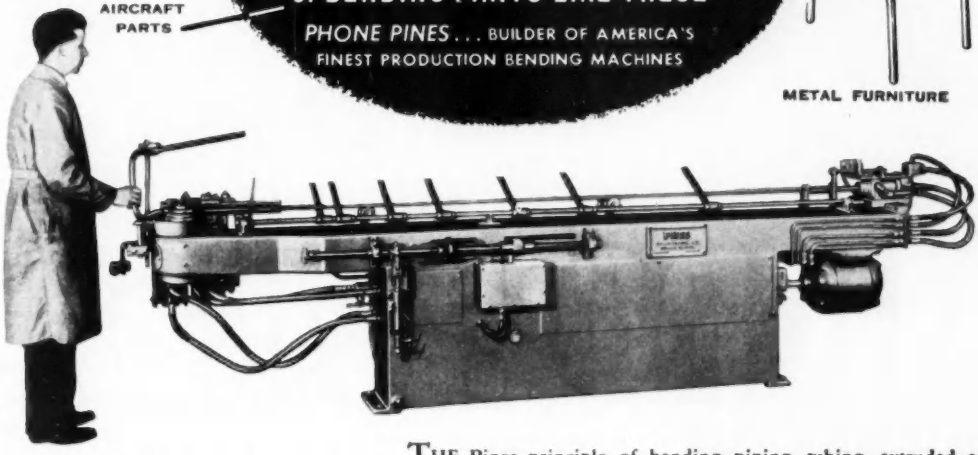
# NEED A FASTER METHOD of BENDING PARTS LIKE THESE

PHONE PINES . . . BUILDER OF AMERICA'S FINEST PRODUCTION BENDING MACHINES

AIRCRAFT PARTS



METAL FURNITURE



## 6 COST CUTTING FEATURES OF PINES BENDERS

- Produce Accurate Uniform Bends without marking or distorting.
- Push-Button Control — simple, easy for one man to operate.
- Highly Versatile — handle a wide variety of work — serpentine, coil, compound, and multiple bends.
- Fast Set-Ups — tool changes in 10 minutes.
- Narrow in Width — fits into small areas.
- Superior Design — tapered alloy-steel spindle, adjustable gibs, Timken bearings, panel-mounted valves, Vickers pump.

THE Pines principle of bending piping, tubing, extruded or rolled sections and mouldings employes tested and proven methods that assure best results and peak production. Roll, compression, draw, and stretch methods are skillfully adapted to best suit your material specifications and product requirements. Hydraulic power, push-button controls, and automatic operation are combined assuring high efficiency and production economy. A complete range of Benders are provided for light or extra heavy work, for small lot or high production runs. Ask Pines to analyze your bending problems now. Phone Aurora 2-7608.




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Find out how Pines Benders are designed to save time and cut costs on a wide range of work. Literature described and pictures various models, attachments, and methods on actual jobs.

TIMKEN BEARINGS
BENDING PROFILING CUT-OFF CENTERING MACHINES




PINES ENGINEERING CO., Inc.

*Specialists in Tube Fabricating Equipment*

653 WALNUT AURORA, ILLINOIS

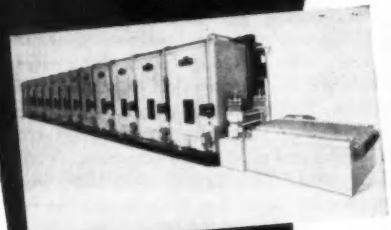
**At right,** MICRO-POLISH unit showing easily accessible controls and neat, compact design.

**At left,** MICRO-POLISH unit with cabinet removed to show outstanding M-W, three roll belt control system.



## MURRAY-WAY

# MICRO-POLISH



A typical multiple unit installation using twelve standard units in line.

## *THE BETTER WAY OF SHEET-GRINDING AND POLISHING — PROVED RIGHT IN ACTUAL OPERATION*

**MICRO-POLISH gives you —**

- **Higher quality surface for any given grain size.**
- **A much faster grinding rate without burning.**
- **Substantial operating economies.**
- **Unbelievable versatility. MICRO-POLISH handles strip, sheet or blanked parts, any width or length.**
- **A wet or dry process to meet your needs.**
- **Dependable, convenient controls, fully shielded from abrasives and foreign matter.**

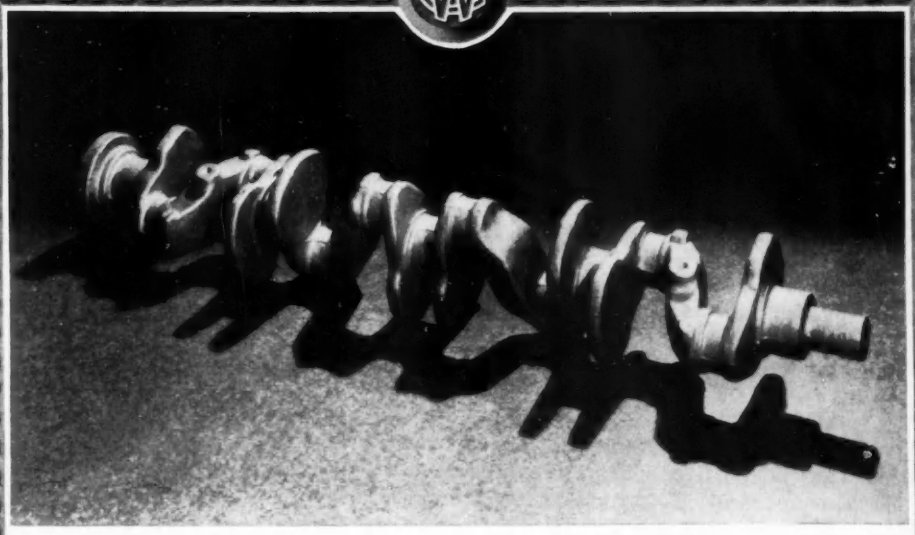
**We also manufacture a complete line of automatic buffing and polishing equipment, to handle any contoured or formed parts. Your inquiries are invited.**

MURRAY WAY

**THE MURRAY-WAY CORPORATION**

**3925 WEST FORT STREET • DETROIT 16, MICHIGAN**

AUTOMATIC POLISHING, BUFFING, GRINDING EQUIPMENT



*The Crankshaft*

—probably the most important single part in the modern high-speed, high-compression, internal-combustion engine.

*Wyman-Gordon*—specialists in the design and forging of crankshafts since the start of the automotive industry—furnished the first heat-treated crankshaft, forged the first six-throw crankshaft, forged the first eight-throw crankshaft, forged the first crankshaft with integral counterweights. In automotive crankshafts and in all types of aircraft forgings, steel and light alloy, there is no substitute for Wyman-Gordon experience.

*Standard of the Industry for More Than Sixty Years*

# WYMAN-GORDON

FORGINGS OF ALUMINUM • MAGNESIUM • STEEL

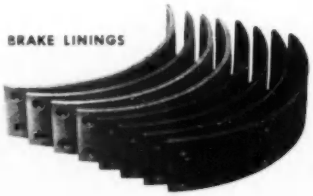
WORCESTER, MASSACHUSETTS

HARVEY, ILLINOIS DETROIT, MICHIGAN

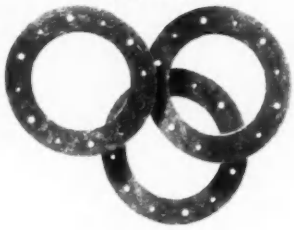
BRAKE BLOCKS



BRAKE LININGS



CLUTCH FACINGS



# Thermoid

## Can Be Right at *Your* Elbow When You Need Help

Thermoid's research, development, and production facilities are available to help automotive engineers find better, more economical ways of improving the performance of cars, trucks, buses, or tractors.

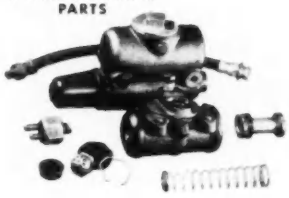
Thermoid is one of the automotive industry's leading sources of Brake Linings, Clutch Facings, Hydraulic Brake Parts, Fan Belts, Radiator Hose, Heater and miscellaneous Hose, Car Carpets, and other quality products.

Thermoid has a long, close, and friendly association with the automotive industry. Design and production engineers who use Thermoid's facilities find they can rely on our ability and experience.

It is because of Thermoid's continuing development of new methods and its efforts to steadily improve quality that Thermoid consistently maintains a progressive leadership in the field.

Your inquiry is invited.

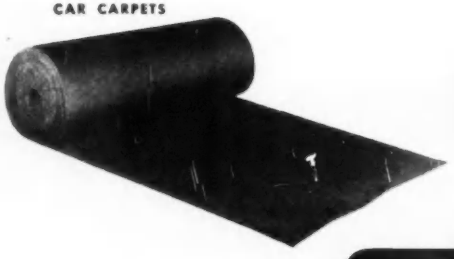
HYDRAULIC BRAKE PARTS



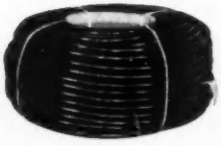
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HEATER AND MISCELLANEOUS HOSE



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Thermoid Company • Main Office and Factory: Trenton, N. J.

# as LIGHT as aluminum —WEARS like iron

Unretouched photo of VANASIL piston



MICRO-X VANASIL pistons have run way over 200,000 miles with only *.002"* to *.005"* wear on the top ring grooves. How much wear do you get in top ring grooves on the pistons you are using—in 100,000 miles? in 200,000 miles, if you ever run them that far?

Have you had rings break because of badly worn grooves, causing a breakdown on the road and a costly tow-in job as well as lost time and an engine overhaul? *It doesn't happen with VANASIL!* We invite you to check your pistons, point by point, against these

## 10 VANASIL ADVANTAGES

1. **Patented vanadium silicon aluminum alloy, as light as any other.**
2. **Outwears other aluminum alloys several times.**
3. **Greatly reduced ring groove and pin hole wear.**
4. **Low expansion characteristics of cast iron.**
5. **Fitted with cast iron clearances.**
6. **Solid skirt needs no expansion device.**
7. **Heat conductivity similar to other aluminum alloys.**
8. **"Oil-absorbing" microscopic porous texture has high resistance to scoring and scuffing.**
9. **No grain growth.**
10. **No tin plating or coating is necessary.**

**MICRO-X VANASIL "OIL-ABSORBING" PISTONS**

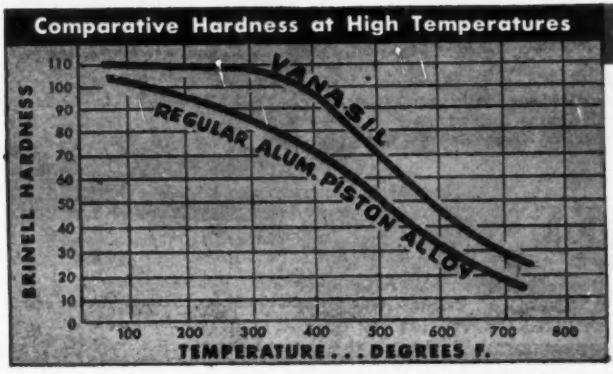
### GASOLINE or DIESEL . . . VANASIL PISTONS ARE "TOPS"

The tough Vanasil alloy reduces top ring groove wear up to 75%—that's why Vanasil pistons give amazing operating economy while piling up performance records of 200,000—300,000—400,000 miles of service. Try a set!—send coupon or phone for our test Set Offer.

**GILLETT & EATON, INC. (Est. 1868) Phone 6201, LAKE CITY, MINN.**

**JOBBERS—SALES REPRESENTATIVES**

**• A sales franchise for MICRO-X VANASIL Pistons is a rare opportunity. Some territories still open. Write or wire today.**




**Send for TEST SET OFFER**

**GILLETT & EATON, INC.**
**800 Doughty St., Lake City, Minn.**

Please send full information and Test Set Offer on VANASIL Pistons.

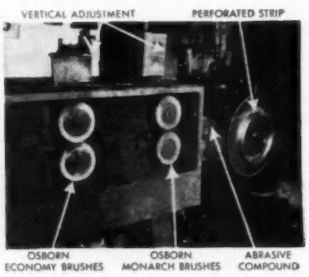
Our trucks are.....

*Name*.....

*Firm Name*.....

*Address*.....






AUTOMATIC BRUSHING MACHINE *for cleaning and finishing hardened high-carbon steel razor blade strip. Brushes rotate at 3450 rpm, finishing strip for hundreds of thousands of blades per day.*



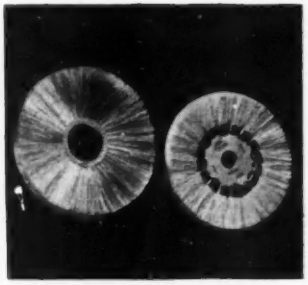
FINISHED STRIP *for double-edge razor blades. Manufacturer uses same type of equipment for single edge blades and cutting tool blades. Brushing removes heat-treat scale and prepares strip for etching.*

# What gives the razor blade its smooth face?

## ...a brush! *Here's a double-edge idea to improve your cleaning and finishing operations:*

Now, after hardening razor blade strip, progressive manufacturers are (1) removing heat-treat scale and (2) preparing the strip surface for name-etching . . . *all in one speedy automatic brushing operation.* The continuous, hardened strip passes through a finishing compound, then between two counter-rotating Osborn Monarch® Brushes, then between two Osborn Economy® Brushes. These two Osborn brushing stations do the work of 6 stations of the former method. The strip comes out uniformly clean . . . micro-smooth.

Can you "double up" like this on cleaning and finishing? Or can you use new Osborn brushes and techniques in other ways to speed your output and cut costs? An **O**sborn **B**rushing **A**nalyst will gladly survey your plant and make suggestions. Call or write *The Osborn Manufacturing Company, Dept. 431, 5401 Hamilton Avenue, Cleveland 14, Ohio.*



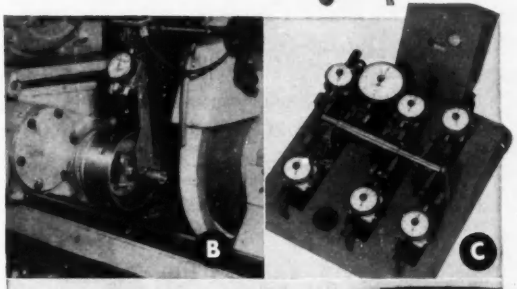
"DOUBLE-DUTY TEAM." *Left: Osborn Economy Brush. Right: Osborn Monarch Brush. The two brushing stations do the work of 6 stations of the former method.*

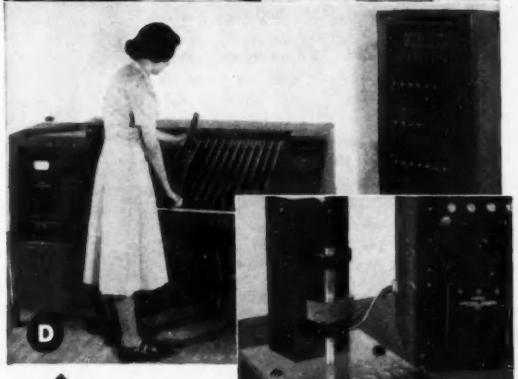
OSBORN

**LOOK FOR THE NAME OSBORN . . . RECOGNIZED EVERYWHERE FOR QUALITY WORKMANSHIP AND MATERIALS**

# FEDERAL AUTOMATIC · DIMENSIONAL GAGES







Sorts 1000 parts per hour into 18 categories differing by .0001". Former method sorted only 175 parts per hour.

As a result of wide experience with all modern gaging systems — mechanical, air, electrical, and electronic — Federal has established a top reputation for Automatic Dimensional Gages. Federal's versatility and know-how are ready to serve you in designing and building every type of gage from "Continuous Measuring" to "Automatic Sorting."

## A CONTINUOUS MEASURING GAGES

Glass rods, sheets, and tubes; strip steel and rods; rubber and plastic covered wire; paper; sheet rubber; and many other continuously produced materials are gaged continuously and automatically to *save* material and *protect* quality.

## B MACHINE SIZE-CONTROL GAGES

Electrical, Electronic and Air Gages are designed and built for automatic *size-control* of machine operations. They prevent waste, save time, protect quality. They increase output per manhour by enabling operator to handle more machines.

## C MULTIPLE DIMENSION GAGES

With the use of the Federal Electricator, many dimensions can be gaged simultaneously by watching a *single light*. When this light indicates an incorrect dimension, that dimension is quickly identified on the Indicator which also tells the operator *how much* the dimension varies from the correct size.

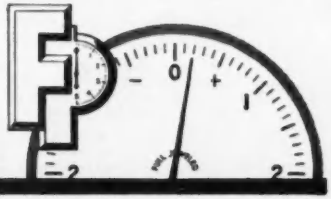
## D SORTING GAGES

Federal semi- and fully-automatic Sorting Gages are size-sorting all kinds of products: steel balls 1/64" diameter and larger, paper-thin copper washers, piston pins, spark plug bodies, compressor pistons and pins, fountain pen barrels, depths of dies. Built from standardized electronic units, they are establishing new records for speedy, economical size control.

We welcome your inquiries. Please send sample parts and blueprints, if possible, for engineering study. No obligation. Federal Products Corporation, 1264 Eddy St., Providence 1, R. I.

**FEDERAL**

**Largest manufacturer devoted exclusively to designing and manufacturing *all types* of DIMENSIONAL INDICATING GAGES**



# Mechanical
# TUBING SATISFACTION
## for all machining and fabricating requirements

**You have a wide choice of B&W MECHANICAL TUBING**

**TYPES**—Seamless (hot finished, cold drawn or rocked.) Welded (from hot or cold rolled strip.)

**GRADES**—Carbon, Alloy, and Stainless Steels.

**SIZES**—Up to 9⅝" O.D. in full range of wall thicknesses.

**QUALITY**—Open-hearth and electric furnace steels, including aircraft and magnaflux qualities.

**CONDITION**—Unannealed, annealed, tempered, normalized, or otherwise heat-treated as required.

**SURFACE FINISHES**—As rolled, as drawn, as welded, flash removed, turned, scale-free, and polished.

**SHAPES**—Round, square, rectangular, oval, streamlined, and special shapes.

**FABRICATION**—Upsetting, expanding, bending, safe-ending, and machining.

**A GOOD MAN TO KNOW**

. . . Your B&W Tube Representative, because of his factory training in "tube technics" and specialized knowledge of applications may help you uncover tubing economies in buying and applying carbon, alloy, and stainless grades.




Say B&W before you say TUBES . . . for long-term service satisfaction and economy.

**THE BABCOCK & WILCOX TUBE COMPANY**

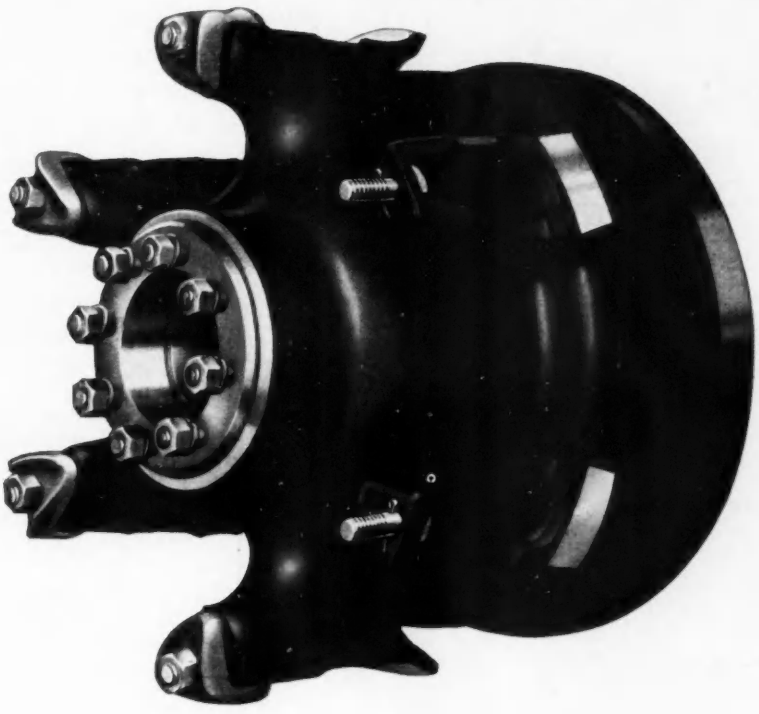
**General Offices: Beaver Falls, Pa.**

**Plants: Alliance, Ohio, and Beaver Falls, Pa.**

Sales Offices: Alliance, Ohio • Beaver Falls, Pa. • Boston 16, Mass. Chicago 3, Ill. • Cleveland 14, Ohio • Detroit 26, Mich. • Houston 2, Texas Los Angeles 15, Calif. • New York 16, N. Y. • Philadelphia 2, Pa. St. Louis 1, Mo. • San Francisco 2, Calif. • Syracuse 2, N. Y. Toronto, Ontario • Tulsa 3, Okla.

B&W SEAMLESS and WELDED TUBES

# GUNITE CAST WHEELS



## for highway trucks and trailers

Assure yourself of minimum wheel and tire assembly time by using GUNITE Wheel Assemblies. Tire mounting requires no special tools . . . is quick, easy and simple. Six floating lug bolts firmly lock dual tires on the wheel. The stronger, lighter tubular-spoke of GUNITE design brings you a more efficient wheel with the proven strength of cast electric-steel. Write for complete information on GUNITE Wheels.

**FERROUS CASTINGS FOR THE AUTOMOTIVE INDUSTRY**

AUTOMOTIVE CASTINGS MADE TO YOUR SPECIFICATIONS.

GUNITE operates three ferrous foundries under one roof:

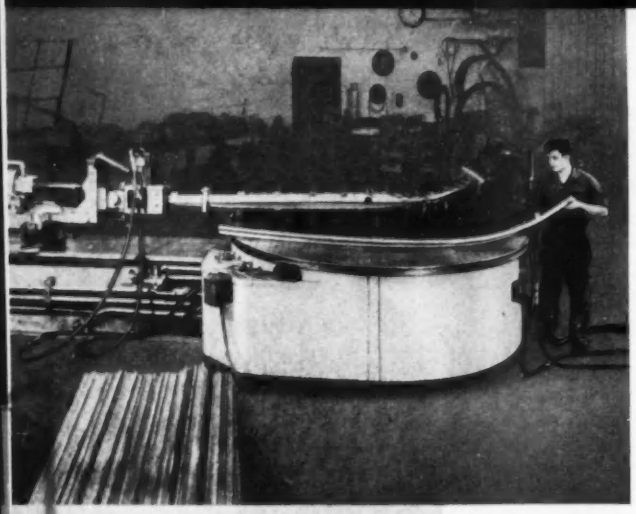
1. Gunite (Processed Gray Iron).
2. Malleable Iron.
3. Electric Steel.

Thus GUNITE can provide the best cast ferrous material to suit your requirements.

**GUNITE FOUNDRIES CORPORATION**

ESTABLISHED IN 1854 • ROCKFORD, ILLINOIS

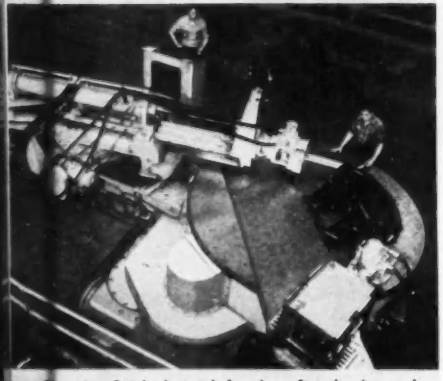
# BATH the machine that
## SHEETS, EXTRUSIONS, TUBING,



Above: Stretch-forming and twisting around a compound curve in a multiplicity of planes.

The BATH machine provides the 14 essentials of a UNIVERSAL Contour Former. It is the only machine that can form virtually all the shapes that will be required in future aircraft design.

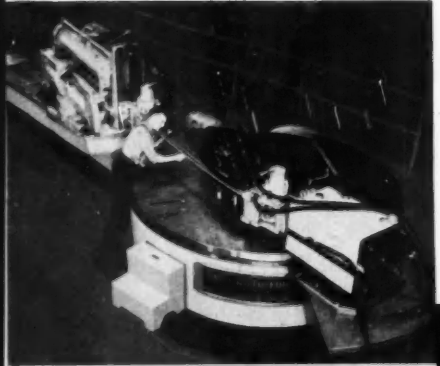
Hundreds of shapes, with compound curves and varying radii in many planes, are being formed on BATH exclusively because no other machine can produce them. Read the 14 essentials listed below and you will choose BATH—for only BATH provides them all.



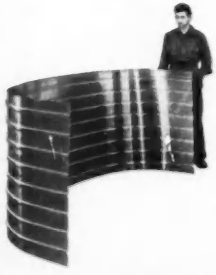
Showing finished stretch-forming after shaping and heat treating at Boeing. Pull in either direction is exerted by both ram and table cylinders.



Aluminum gun turret rings accurately formed to complete circle.

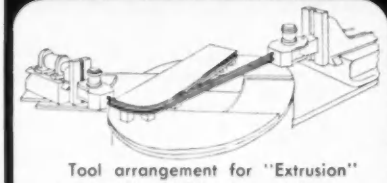


Illustrating the tangent stretching principle on a light section at Boeing. Same machine will handle from 1,000-lb. to 100,000-lb. pull.

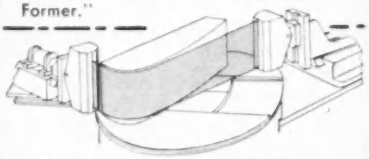


Large corrugated aluminum sheets accurately formed on the BATH machine.

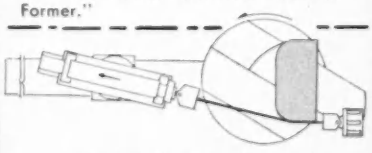
### TYPICAL DIE SET-UPS



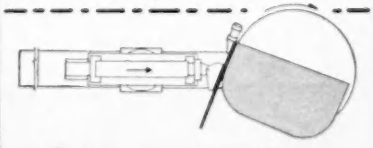
Tool arrangement for "Extrusion" work on "The BATH Universal Contour Former."



Tool arrangement for "Skin" work on "The BATH Universal Contour Former."



Typical die set-up for stretch forming.



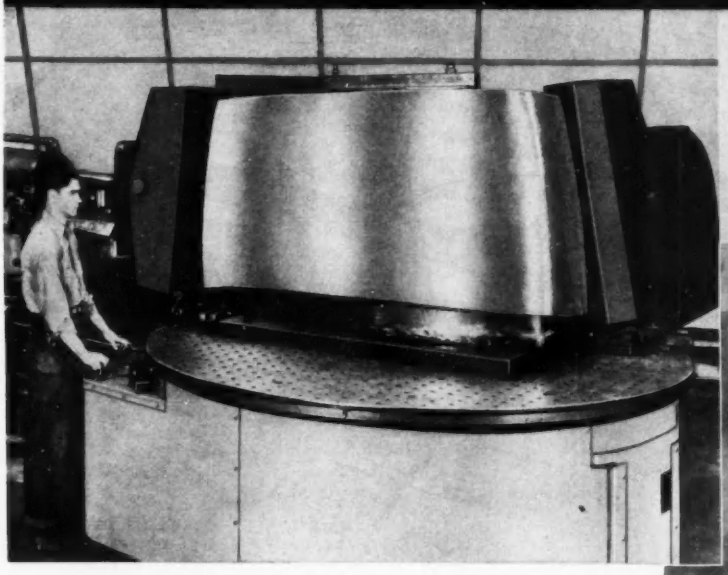
Typical compression forming set-up.

# THE CYRIL BATH

6915 MACHINERY AVENUE

# forms ALL the shapes

## ROLLED AND FORMED SHAPES



**Left: Photo illustrates how typical outer-skin section is stretch-formed on the BATH Contour Former. Rotating table construction permits forming sheets with most any combination of curves.**



**Showing aluminum "Z" extrusion being formed in both horizontal and vertical curves.**

## Only BATH Provides ALL These Features

1. **Stretch and compress forming on one machine.** Two-way acting cylinders and reversible table allows choice of forming method best suited to part.
2. **Either sheets or extrusions are formed on the same machine.** Jaw members are movable and adaptable to any cross section.
3. **Tangential, progressive, line by line, forming** on a rotating table permits small capacity machine to do the work of a heavier one.
4. **Heavy sections and parts** that cannot be stretched, may be wipe or roll formed.
5. **Full circles or spirals** are formed in one setting for most any alloy.
6. **Long parts up to 25 feet or more,** can be stretch-formed without re-setting jaws or dies.
7. **Designed to stretch-form reverse bends** without releasing tension on material.
8. **Concentrated application of full tonnage** over small area at a time permits angularity change on extrusions while contours are being formed.
9. **Fast Set-Up:** Die is mounted on table and stretch heads, wiper shoe or roll assembly, can then be easily adjusted to height desired.
10. **Forms or Rolls in Two Planes:** Produces parts with both horizontal and vertical curves simultaneously.
11. **Material can be twisted while being formed** in varying horizontal and vertical planes.
12. **Safety:** Over 10 years of operation have resulted in no known accident to an operator. Machine damage is prevented by shear pins at critical points.
13. **Built to Machine Tool Standards:** Deep sections, eliminating machine deflection, assures constant precise part duplication.
14. **Faster production per hour** with very low scrap loss, rarely running 1%.



**Jet flange rings, shrouds, cases, flame tubes, stiffeners and casings are formed in either full circles or segments.**



**Showing how full circles and spirals are formed on the BATH machine.**

COMPANY

• CLEVELAND 3, OHIO




The purchase of *Impactools* with appropriate equipment for operating them cost a mid-west manufacturer $1200. The Air Tools and equipment paid for themselves in 33 days and a saving of $10,000 was realized the first year on the assembly of materials handling equipment.

When an Air Tool bears the Ingersoll-Rand monogram, extra power, extra speed, extra durability, and extra safety are yours at no extra cost. These dependable I-R Air Tools always give top performance even on your toughest jobs.

If you have production and maintenance problems which are tough to solve, we have the solutions for them in the form of a complete line of Air Tools which *enable your men to turn out more work with less effort.* Call our nearest branch office today and ask for one of our Air Tool Specialists or for full details on any of our drills-impactools-riveting hammers-chipping hammers-screw drivers-clay diggers-backfill tampers-hoists-grinders-sump pumps-sanders-etc.

AIR POWER *The Key to Lower Production Costs*

**Ingersoll-Rand**

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COMPRESSORS · AIR TOOLS · ROCK DRILLS · TURBO BLOWERS · CONDENSERS · CENTRIFUGAL PUMPS · OIL AND GAS ENGINES

# COMPLETE *Finishing* SYSTEMS

for ENAMEL • LACQUER • PAINT



Two Mahon Gas-Fired Dry-Off Ovens which bodies enter immediately following wet sanding and rinse operations.



. . . the EXPERIENCE that goes into the PLANNING and ENGINEERING of MAHON EQUIPMENT is the item of GREATEST VALUE to YOU!

Tack-Off Booth at entrance to Two-Tone and Repair Spray Booth. Filtered Air is supplied to this Tack-Off Booth and is maintained at slight pressure to exclude factory dust.



Cooling Tunnels at exit end of Dry-Off Ovens saves floor space, exhaust excessive heat otherwise radiated within the plant.



Mahon Direct Gas-Fired, Tunnel Type Finish Baking Oven with Cooling Tunnel at exit end partially exposed.

## *MODERN MAHON FINISHING EQUIPMENT Will Do A Better Job of Finishing for YOU Too!*

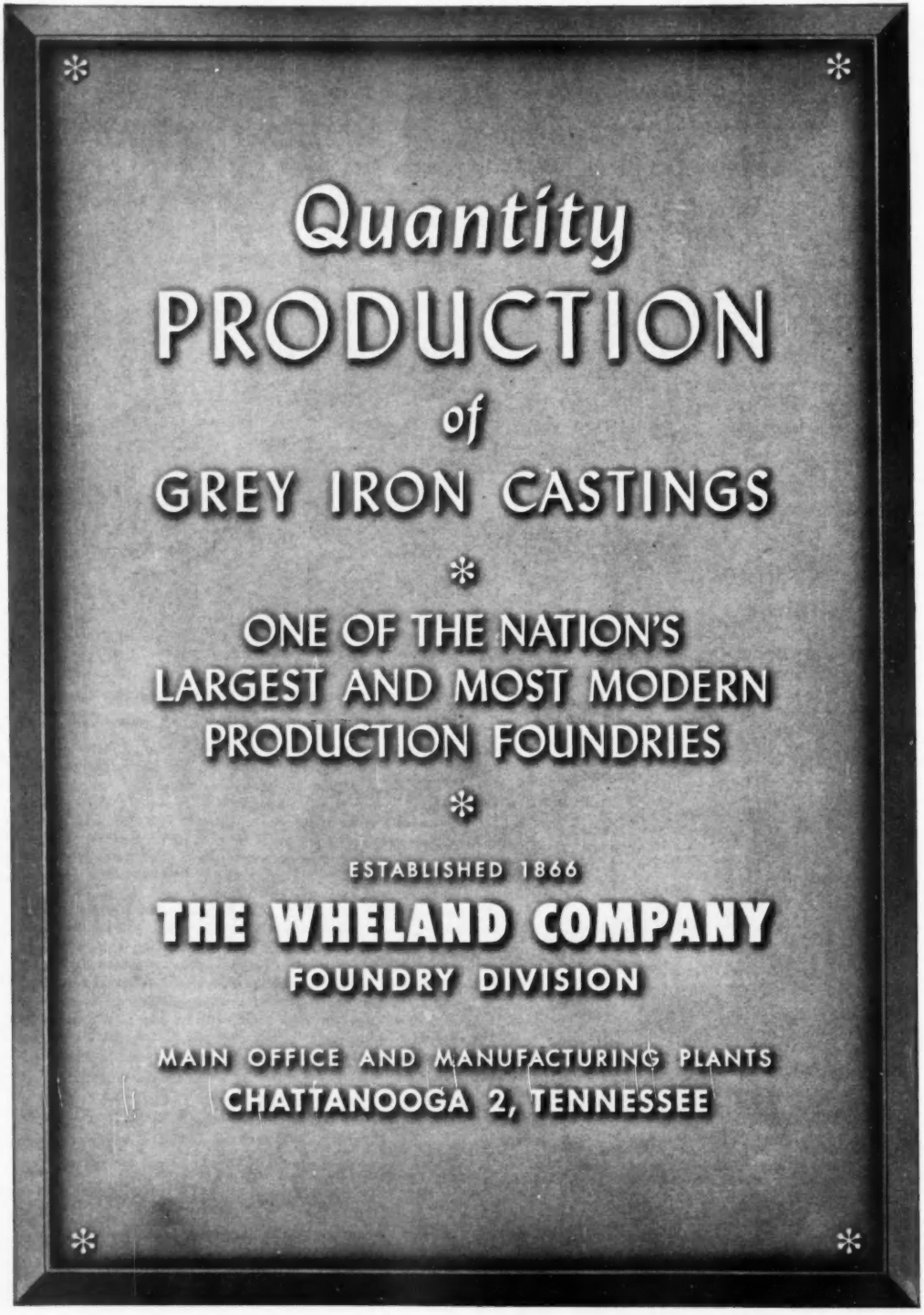
Progressive manufacturers today insists on modern Mahon Finishing Equipment . . . they pay a little more for the many new features engineered into these systems to reduce maintenance, provide better working conditions, and produce finer finishes at lower cost. Illustrated here are some of the major units of equipment in a complete Mahon finishing system specially designed to process automobile bodies. This system comprises two complete finishing production lines and an additional two-tone and repair line . . . some of the innovations include an elaborate air supply and distribution system, "Hydraire" flood sheets, for more efficient control of air flow within the down-draft spray booths, automatic sludge segregators and unloaders to eliminate the necessity for extensive periodic cleaning, cooling tunnels at exit ends of drying and baking ovens to conserve floor space and exhaust the excessive heat which the hot bodies would otherwise radiate within the plant. When you are in need of new finishing equipment it will pay you to take advantage of the experience and the wealth of technical knowledge and practical know-how accumulated by Mahon engineers in thirty years of leadership in this field. See Mahon's Insert in Sweet's Mech. Ind. File, or write for Catalog A-650.

**THE R. C. MAHON COMPANY**

HOME OFFICE and PLANT, Detroit 34, Mich. • WESTERN SALES DIVISION, Chicago 4, Ill.

Engineers and Manufacturers of Complete Finishing Systems—including Metal Cleaning and Pickling Equipment, Metal Cleaning and Rust Proofing Equipment, Dry-Off Ovens, Hydra-Filter Spray Booths, Filtered Air Supply Systems, and Drying and Baking Ovens; Core Ovens, Dust Collecting Systems, Fog-Filters, and many other Units of Special Equipment.

# MAHON


Quantity
PRODUCTION
of
GREY IRON CASTINGS
ONE OF THE NATION'S
LARGEST AND MOST MODERN
PRODUCTION FOUNDRIES
ESTABLISHED 1866
THE WHELAND COMPANY
FOUNDRY DIVISION
MAIN OFFICE AND MANUFACTURING PLANTS
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STAMPINGS
WE ARE READY TO ACT AS SUB-CONTRACTORS
TO FURNISH YOU WITH HIGH QUALITY . . .
PRECISION PARTS . . . QUICK DELIVERIES
Speed your output of defense orders. Let Garrett's extensive World War II experience in making Armed Forces parts and material produce your stampings. From a small part, produced on high speed presses, to a large television chassis Garrett has the plants . . . equipment . . . and "know-how" to turn out stampings by the thousands or millions.
COMPLETE EQUIPMENT FOR HIGH SPEED PRODUCTION
Our plants are equipped with the most modern automatic high-speed presses from 17 to 150 ton capacity. Stampings can be manufactured to your precise specifications from steel, stainless steel, aluminum, Alclad, brass and numerous other metals.
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FAST DELIVERIES . . . ONE SOURCE . . . ALL PARTS
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Thomas Strip

## Cold Rolled Strip Steel

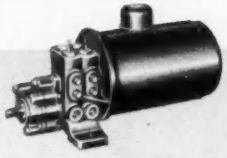
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Pesco Hydraulic Power package model 05-2252-010. Pump displacement .433 cu. in. Capacity 2.75 g. p. m. @ 1600 r. p. m. @ 1200 p. s. i. Package includes relief valves, check valves, and reservoir.

See the Pesco Exhibit
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MATERIALS HANDLING EXPOSITION
April 30 to May 4
International Amphitheater · Chicago, Ill.

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Offering a new range in performance, never before equalled in combine design, the new Deluxe Cockshutt "Drive-o-matic" combine makes possible great savings in threshing time and a much greater yield in grain threshed.

By designing the combine so that a single unit Pesco hydraulic Power Package provides the necessary power for both lowering and raising the combine header, to compensate for variations in crop heights and ground levels, and for regulating the forward speed of the combine itself, Cockshutt engineers have made it possible for the operator to meet all harvesting conditions with finger tip control.

The preciseness, ease, and accuracy with which Pesco hydraulic muscles can handle such complicated, heavy, and sometimes awkward operations, is only one important reason why more and more farm and industrial equipment manufacturers are turning to Pesco for answers to their hydraulic power problems.

Perhaps this sales power of Pesco hydraulic power can help you, too. For the complete story, write today.

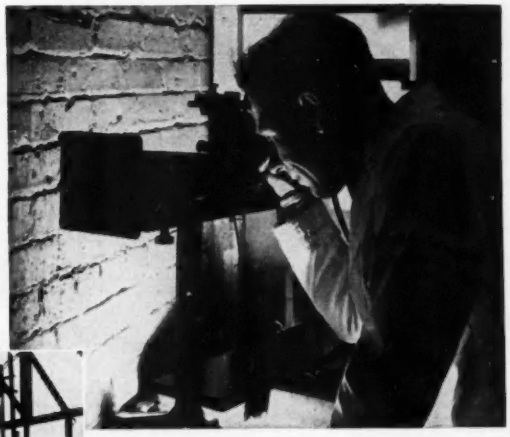
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PRODUCTS DIVISION

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24700 NORTH MILES ROAD BEDFORD, OHIO

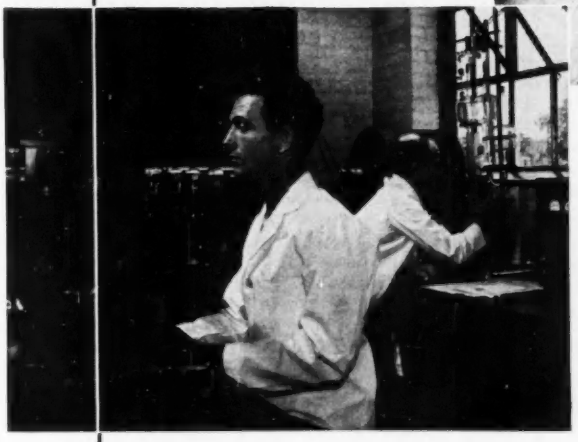

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# Centrifugal's Quality Control



▲ Shown above is the very important microscopic structural examination which is performed at pre-determined periods four times daily.



◀ Shown at left is another quality control check — weighing sample drillings of iron for carbon determination — just one of several chemical analyses performed to maintain precise composition control.

***. . . and how it saves them money.*** You, too, will be glad, particularly during these times of shortages when quality is often slighted. Centrifugal's quality control means your customers will get more out of your engine — more mileage, more oil economy, more service without breakdowns.

Centrifugal's quality control means you will have fewer rejects, fewer machining operations, less scrap loss. Ask our customers — they'll tell you the same.

**Centralloy**

Cylinder sleeves are centrifugally cast in permanent molds for electric alloys. Choice of alloys enables you to select characteristics that are just right for your engine — be it marine, rail or land. Send today for specifications and/or sample castings.

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*Special electric alloys centrifugally cast for extra dependability.*

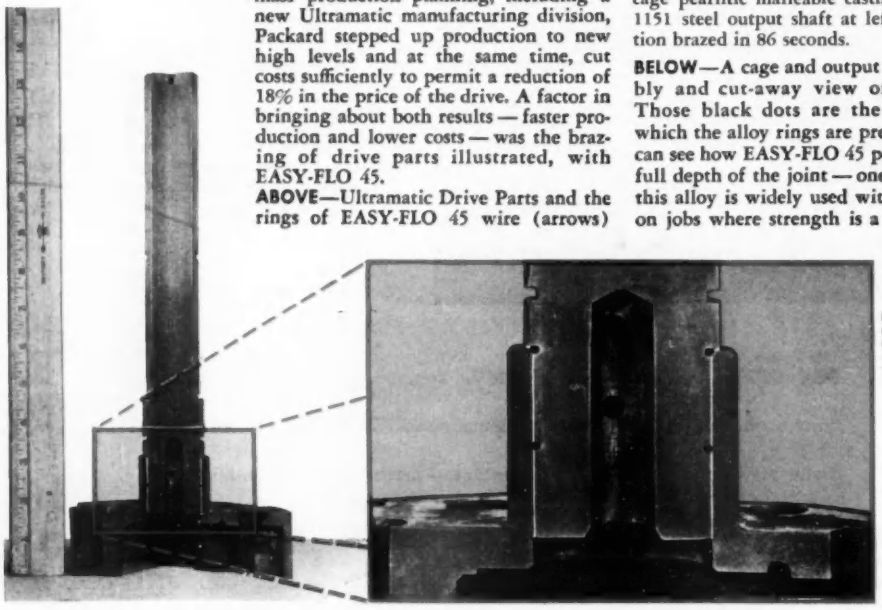
# EASY-FLO 45 helped Packard boost Ultramatic Drive production — and cut costs...



■ When Packard brought out the Ultramatic Drive, the demand quickly outstripped production. Through smart mass production planning, including a new Ultramatic manufacturing division, Packard stepped up production to new high levels and at the same time, cut costs sufficiently to permit a reduction of 18% in the price of the drive. A factor in bringing about both results — faster production and lower costs — was the brazing of drive parts illustrated, with EASY-FLO 45.

**ABOVE**—Ultramatic Drive Parts and the rings of EASY-FLO 45 wire (arrows) used to join them. Clutch housing and cylinder sleeve at right of picture are induction brazed in 87 seconds. Planetary cage pearlitic malleable casting and SAE 1151 steel output shaft at left are induction brazed in 86 seconds.

**BELOW**—A cage and output shaft assembly and cut-away view of the joint. Those black dots are the grooves in which the alloy rings are preplaced. You can see how EASY-FLO 45 penetrates the full depth of the joint — one reason why this alloy is widely used with confidence on jobs where strength is a "must."



*Photos and data courtesy of PACKARD MOTOR CAR COMPANY*

## GET THE AMAZING EASY-FLO BRAZING STORY IN BULLETIN 20

This bulletin explains why high strength is a natural property of all EASY-FLO 45 brazed joints, and how and why this alloy assures fast production and surprisingly low costs on a wide variety of ferrous and non-ferrous metal joining. It is also packed with useful information on joint design and fast heating and production methods. Write for a copy today.




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### BOEING TO PUT 7000-TON H-P-M PRESS TO WORK ON BOMBER PARTS

● The newest production tool that will go to work in Boeing's Seattle plant is an H-P-M 7000-ton rubber pad forming press pictured at the right. Bomber parts, ranging from large bulkheads to assorted small parts will be produced on this press, which carries a rubber pad 48" x 120" and is equipped with hydraulic actuated loading tables.

*Thirty-six H-P-M presses of 2000-tons or larger have been built for the aircraft industry* for such special stamping and forming jobs. The wide range of speeds and controls . . . automatic cycle . . . H-P-M FASTRAVERSE "closed circuit" hydraulic power system and top operating economies have made H-P-M presses the choice of the entire metal working industry. Find out what H-P-Ms can do for your production problems by calling in an H-P-M engineer today.



*Write for a free copy of Bulletin 5005 which describes in full H-P-M FASTRAVERSE press operations and features.*

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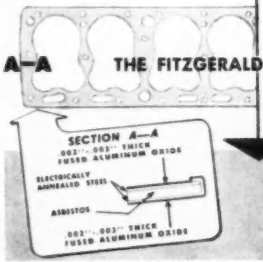
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### Here's Proof!

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**From a spring manufacturer:**

"We are getting a very fine bake in one half the time as our present conventional type ovens and, of course, it is much quicker to bring up to the desired temperature thereby saving gas and maintenance."

**From an air-conditioner manufacturer:**

"We are operating this cleaning and painting operation through a Burdett gas fire burn-off and bake oven at about one-half our previous cost."

**A large manufacturer of diesel engines found:**

. . . that core drying formerly requiring 12 hours is now being done in only 12 minutes with much better results.

### It's No Mystery!

Burdett "Radiant Heat"—the heart of every Burdett Oven—achieves these remarkable results in drying paints, enamels and lacquers, flash coat drying, burn-off and rust inhibiting, de-greasing, water dry-off, core baking, soft metal melting and food processing, because it features:

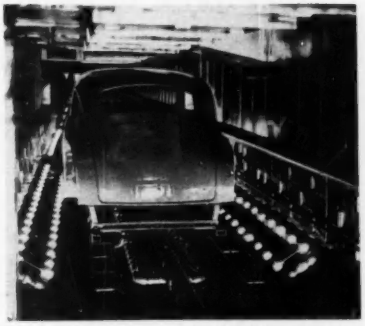
- **Instant Heat Transfer**
- **Deep, Thorough Heat Penetration**
- **Fast Start Operation**
- **Virtual Elimination of Fuel Waste—combustion is clean and complete**

### Regardless of Your Operation

you owe it to yourself and your trade to ask for Burdett Oven recommendations. There's no obligation until you sign on the dotted line—and sign you will when you learn all the facts of how little it costs, how fast it performs, and how perfect the results.

Test runs—on your product—will be made for you at the Burdett plant without obligation. See it run—see the savings—see the results.

***Burdett "Radiant Heat" Gas Burners can easily be installed in present equipment with revolutionary results and savings—ask about it!***



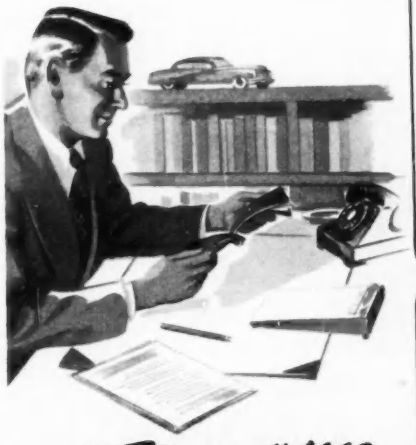
**Burdett System at leading Motor Car Builder cut drying time on synthetic enamels from 45 minutes at 300°F. to 19 minutes with 8% savings in fuel costs.**

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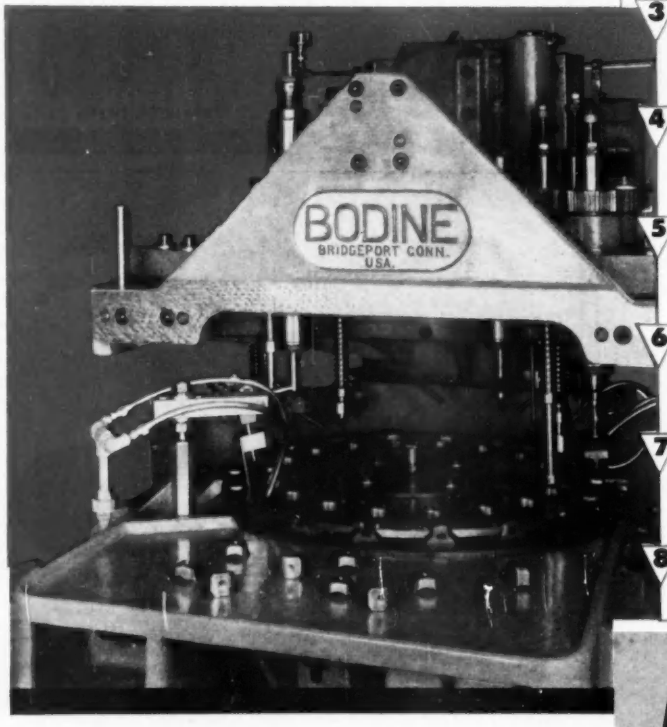
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# Bodine CASE HISTORY NO. 28

**PRODUCTION:** The Bodine 42-30 automatic dial type drilling and tapping machine (one of 6 standard sizes) is equipped with 5 drill spindles (one inverted) and 1 tapping spindle. Production: 15 pieces (or 90 operations) per minute.

For high speed repetitive production of small components, in drilling, tapping, milling, screw inserting, staking and assembly operations, Bodine Automatics lead the field. Check them for Ordnance work . . . ask us for Case History facts on World War II production. You'll need them for competitive contracts for today's production.

**ACCURACY:** *Hole position held to within ±.005". Much closer tolerances can be maintained on a production basis.*






**PROCESSING STEEL POLE PIECES FOR ELECTRIC MOTORS AND STARTERS**

1. Hand load blank to dial.
2. ¼ drill — 1st step.
3. No. 7 drill — 2nd step.
4. No. 7 drill thru.
5. C'sink top $\frac{5}{16}$ dia. x 90°.
6. C'sink bottom $\frac{5}{16}$ dia. x 90° (inverted drill).
7. Tap ¼ — 20.
8. Automatically eject.

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THE **Bodine** CORPORATION
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AUTOMATIC DIAL TYPE DRILLING, MILLING, TAPPING, AND SCREW INSERTING MACHINES

19051

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*Prepares Metal Surfaces for Painting

**Patented Material and Process*

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**The Oakite *CrysCoat* Process Offers These Extras:**

1. **Eliminates operations . . . uses less equipment**
2. **Cuts operating time**
3. **Uses less chemicals for cleaning and conditioning**
4. **Reduces heating costs**
5. **Saves cost of expensive acid-proof tanks and equipment**
6. **Saves cost of frequent descaling and desludging**
7. **Drag-out costs are less because of low original cost of solution**
8. **Saves paint**
9. **Cuts cost of rejects caused by rusting before painting**

**FREE** . . . illustrated folder describes the Oakite *CrysCoat* Process for use in before-paint-treatment of steel, aluminum sheet and castings, zinc die castings and galvanized surfaces. If you are engaged in the fabrication of civilian goods or the speedy production of defense orders—send for Folder F7642.

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## Self-Locking
## SET SCREWS

**can SOLVE your puzzling set screw PROBLEMS, too!**

*Available with practically all types heads (or headless); in all materials and all popular or special sizes.*




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In less than one year, ZIP-GRIP* has been adopted on over 100 products made by many famous manufacturers. A list will be gladly furnished on request.

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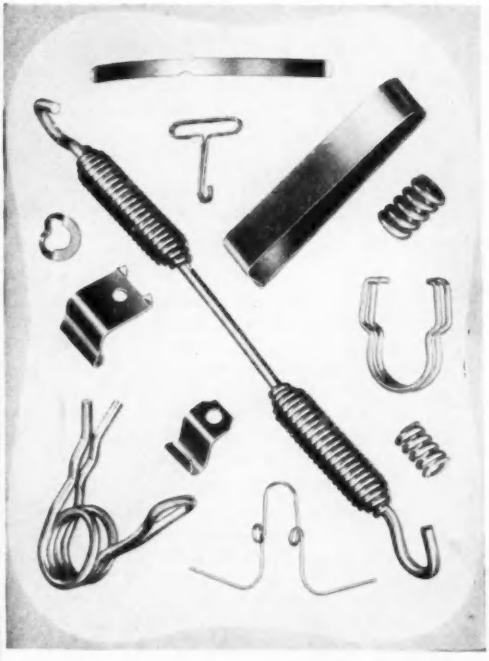


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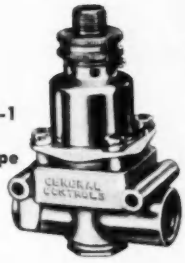
CLEVELAND 5, OHIO

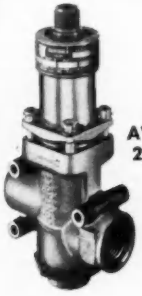
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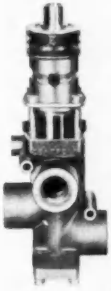
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AV-91 Electro-Magnetic, 3-Way Valve

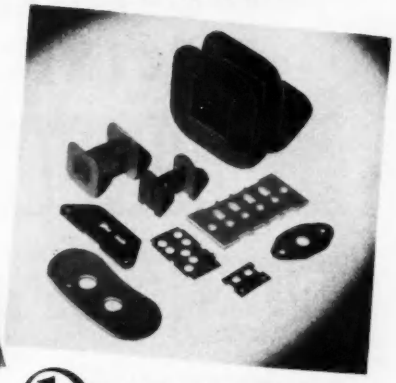
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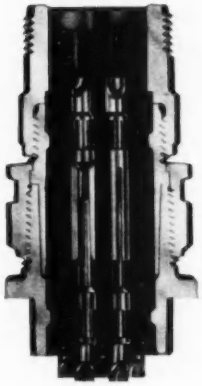
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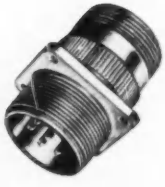
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**SCINFLEX ONE-PIECE INSERT**
High dielectric strength . . . High insulation resistance.





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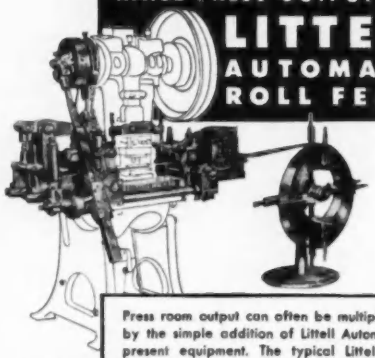
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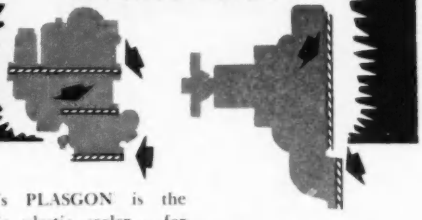
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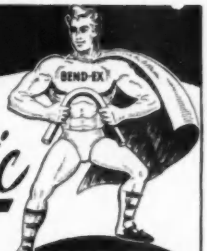
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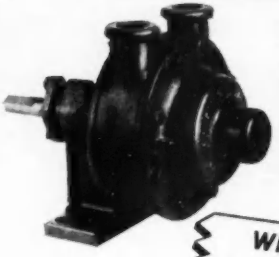
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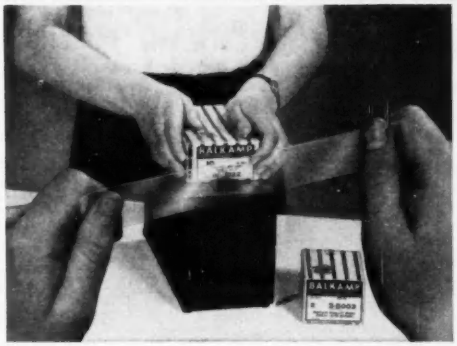
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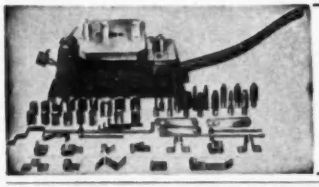
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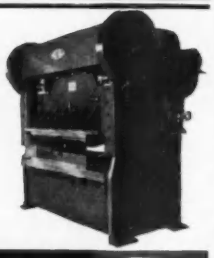
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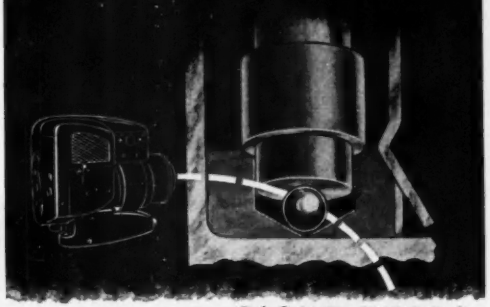
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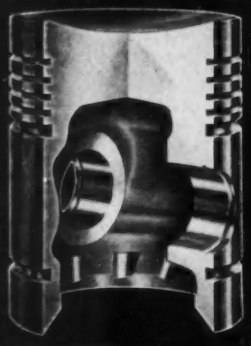


# PISTONS

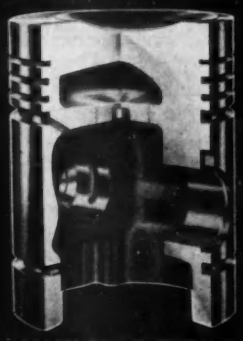
**EXPERTLY DESIGNED**
**PRECISION-MADE**
***Specifically for Your***
**DIESEL ENGINE**

ORIGINAL EQUIPMENT IN AMERICA'S FINEST MOTORS -

**WAUKESHA**
**HERCULES**
**ENGINES**
**FWD**
**TWIN COACH**
**IHC**
**HALL-SCOTT**
**BUDA**
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**DIAMOND-T**
**REO**
**CONTINENTAL**
**SEAGRAVE**
**FEDERAL**



CONDUCTION COOLED



PRESSURE OIL COOLED



SERRATED FINISH

# ZOLLNER

PISTON EQUIPMENT *for* INTERNAL COMBUSTION ENGINES —BOTH GASOLINE AND DIESEL

**ZOLLNER MACHINE WORKS**
FORT WAYNE, INDIANA

***"Makes Any Engine a Better Engine"***



QUALITY

# for QUALITY IN YOUR PRODUCT



Standard Internal Everlock



Standard 80° Countersunk Everlock



Standard Internal-External Everlock

**Their chisel edges lock 2 ways against** vibration, temperature changes, strain...

Chains are still no stronger than their weakest link and there's a chain of quality that runs through your purchasing and specification of component parts. Your product can have no higher degree of quality than the lock washers which hold it together. Then standardize on "Everlock" Washers. The full length of each edge in their patented design *digs in* — into both the nut and the face of the work. They hold for keeps!

**There's an "Everlock" for Every Lock Washer Need**

Four standard types are shown here but if special needs demand others, let Everlock be first to tell you how your *most* exacting specifications can be met.

*When ordering screw-washer assemblers from screw manufacturers specify Everlock Washers for quality and fast service.*

**Ask for the 1950 Catalog. Contains full specifications. Free on request.**

Everlock
"CHISEL EDGE" LOCK WASHERS

THOMPSON-BREMER & COMPANY, 1642 W. HUBBARD ST., CHICAGO 22, ILL.
**In Detroit: Sam T. Keller Company, 2457 Woodward Ave.**

# What sales appeal never changes?

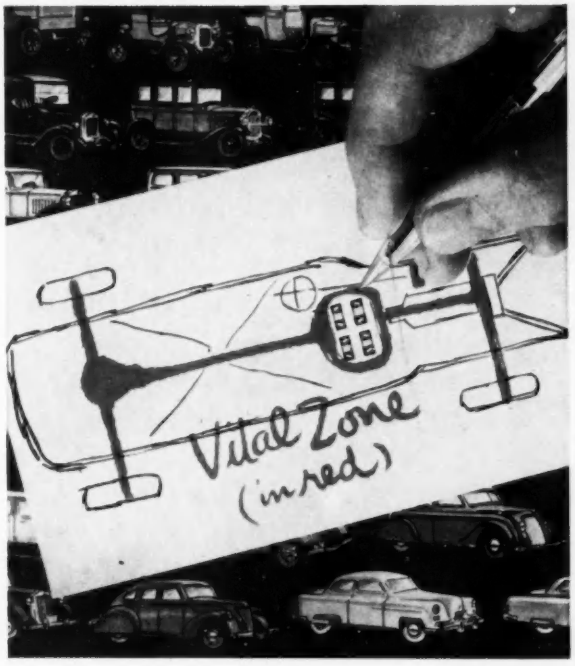
PROGRESS moves fast in the automotive industry. Each year has seen a new array of exciting sales features.

Back in 1905, a power tire pump captured many a customer's fancy. In 1907, nickel-plated trim became the rage. Adjustable front seats set car buyers agog in 1926. Lately it's been automatic transmissions of various types. The emphasis has shifted from one sales feature to another. But through it all there has run one *basic* sales appeal—and that's value. Today, customers are becoming more conscious of value than ever. Especially where it counts the most—in moving parts—the "vital zone".

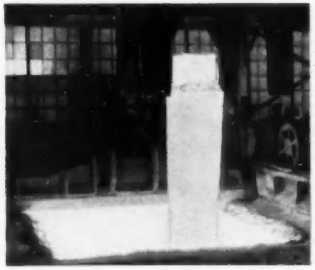
In buying parts for the "vital zone", this simple guide to value may be helpful:

$$Value = \frac{quality + service + public\ acceptance}{price}$$

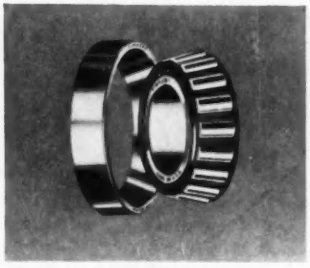
It shows that price is only *one* factor in value, and must be weighed in relation to the factors *above* the line. Timken® bearings give you far more above the line than any other tapered roller bearing (see chart at right below). And in terms of value features, Timken bearing prices are lowest today. So by this formula or any other, your best value in tapered roller bearings is Timken! The Timken Roller Bearing Company, Canton 6, Ohio.




## How TIMKEN® bearings give you value where it counts most . . . in the "vital zone":



**WE MAKE OUR OWN STEEL**—because it is the only way we can get the consistently high quality steel required for Timken bearings. And because it gives us quality control from start to finish. The Timken Company is the only bearing manufacturer in America that makes its own steel.



**FIRST CHOICE FOR PINIONS!** All but two makes of cars use Timken tapered roller bearings on the pinion, toughest bearing application in the car. And in many other places in the vital zone such as wheels, transmissions, differential, etc., Timken bearings give value where value counts.

**ONLY TIMKEN BEARINGS GIVE YOU ALL THESE VALUE FEATURES**

**QUALITY**

1. Design leadership
2. Steel made in our own mill
3. Precision manufacture
4. Rigid quality control
5. 50 years experience

**SERVICE**

6. Unequalled engineering service
7. Unequalled research and development facilities for your use
8. Installation service in the field
9. Widest range of sizes
10. Most dependable source of supply

**PUBLIC ACCEPTANCE**

11. First choice throughout industry
12. Best-known name in bearings
13. Widespread advertising

# it's TIMKEN for VALUE

TRADE-MARK REG. U. S. PAT. OFF.

*TAPERED ROLLER BEARINGS*

NOT JUST A BALL ○ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL ⓡ AND THRUST →ⓣ← LOADS OR ANY COMBINATION →✳←